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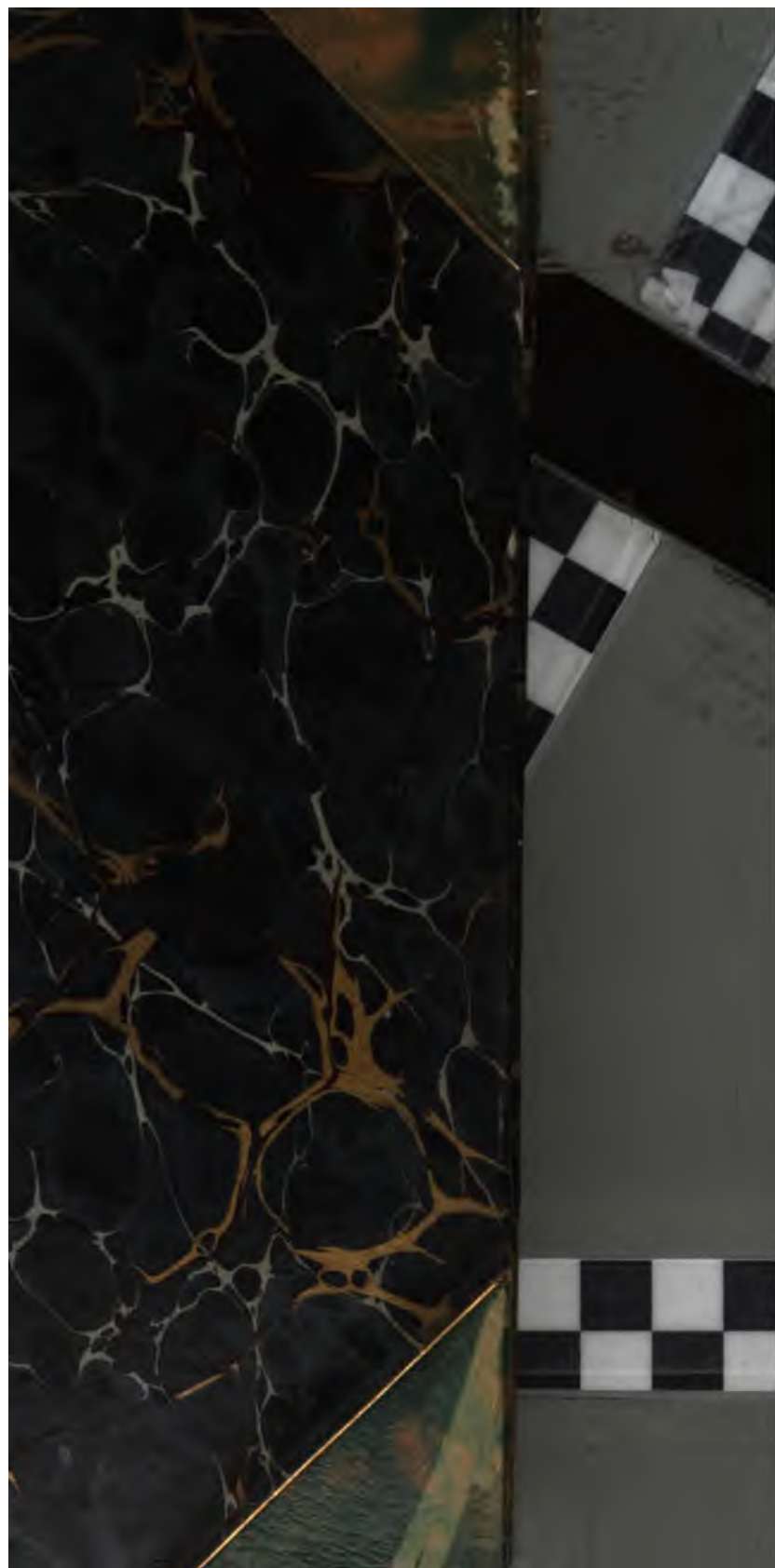
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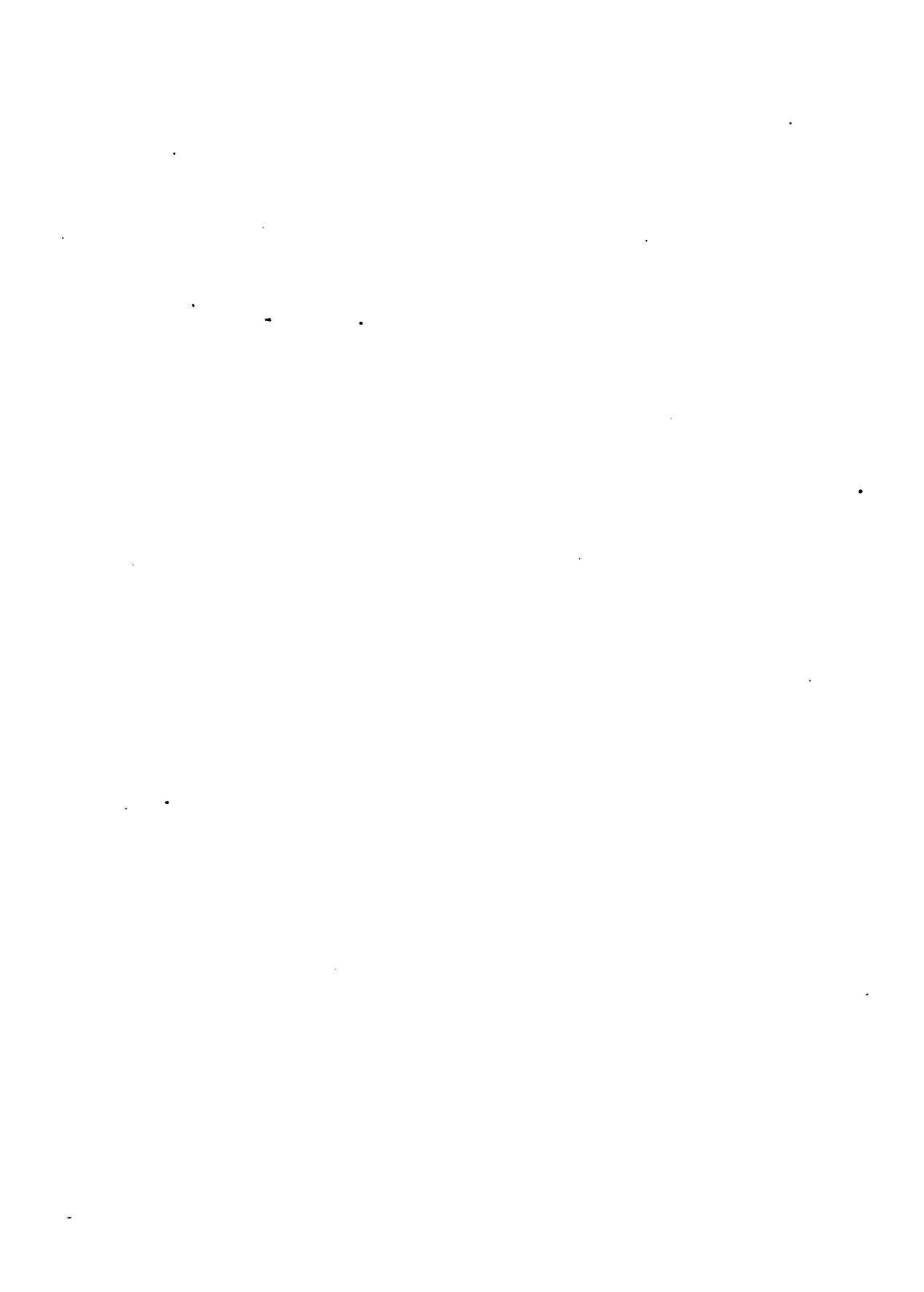
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PROCEEDINGS

OF THE

Society of Antiquaries of Scotland

ONE HUNDRED AND THIRD SESSION

1882-83



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*(Instituted 1874, in terms of a bequest for its endowment by the late
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RHIND LECTURER IN ARCHÆOLOGY—REV. J. COLLINGWOOD BRUCE,
LL.D., F.S.A.

LAWS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND.
INSTITUTED NOVEMBER 1780.
(Revised and adopted December 1st, 1873.)

The purpose of the Society shall be the promotion of ARCHÆOLOGY, especially as connected with the ANTIQUITIES AND HISTORICAL LITERATURE OF SCOTLAND.

I. MEMBERS.

1. The Society shall consist of Ordinary and Honorary Fellows, and of Corresponding and Lady Associates.
2. The number of the Ordinary Fellows shall be unlimited.
3. Candidates for admission as Ordinary Fellows must sign the Form of Application prescribed by the Council, and must be recommended by one Ordinary Fellow and two Members of the Council.
4. The Secretary shall cause the names of the Candidates and of their Proposers to be inserted in the billet calling the Meeting at which they are to be balloted for. The Ballot may be taken for all the Candidates named in the billet at once ; but if three or more black balls appear, the Chairman shall cause the Candidates to be balloted for singly. No Candidate shall be admitted unless by the votes of two-thirds of the Fellows present.
5. The number of Honorary Fellows shall not exceed twenty-five ; and

shall consist of men eminent in Archæological Science or Historical Literature, and they shall not be liable for any fees of admission or annual contributions.

6. All recommendations of Honorary Fellows must be made through the Council ; and they shall be balloted for in the same way as Ordinary Fellows.

7. Corresponding Associates must be recommended and balloted for in the same way as Ordinary Fellows, and they shall not be liable for any fees of admission or annual contributions.

8. The number of Lady Associates shall not exceed twenty-five. They shall be elected by the Council, and shall not be liable for any fees of admission or annual contributions.

9. Before the name of any person can be recorded as an Ordinary Fellow, he shall pay Two Guineas of entrance fees to the funds of the Society, and One Guinea for the current year's subscription. Or he may compound for all future contributions, including entrance fees, by the payment of Twenty Guineas at the time of his admission ; or of Fifteen Guineas after having paid five annual contributions ; or of Ten Guineas after having paid ten annual contributions.

10. If any Ordinary Fellow who has not compounded shall fail to pay his annual contribution of One Guinea for three successive years, due application having been made for payment, the Treasurer shall report the same to the Council, by whose authority the name of the defaulter may be erased from the list of Fellows.

11. Every Fellow not being in arrears of his annual subscription shall be entitled to receive the printed Proceedings of the Society from the date of his election, together with such special issues of Chartularies, or other occasional volumes, as may be provided for gratuitous distribution from time to time under authority of the Council. Associates shall have the privilege of purchasing the Society's publications at the rates fixed by the Council for supplying back numbers to the Fellows.

12. None but Ordinary Fellows shall hold any office or vote in the business of the Society.

OFFICE-BEARERS AND COUNCIL.

1. The Office-Bearers of the Society shall consist of a President, who continues in office for three years; three Vice-Presidents, two Secretaries for general purposes, and two Secretaries for Foreign Correspondence, a Treasurer, two Curators of the Museum, a Curator of Coins, and a Librarian, who shall be elected for one year, all of whom may be re-elected at the Annual General Meeting, except the first Vice-President, who shall go out by rotation, and shall not be again eligible till he has been one year out of office.

2. The Council shall consist of the Office-Bearers and seven Ordinary Fellows, besides two annually nominated from the Board of Manufactures. Of these seven, two shall retire annually by rotation, and shall not be again eligible till they have been one year out of office. Any two Office-Bearers and three of the Ordinary Council shall be a quorum.

3. The Council shall have the direction of the affairs and the custody of the effects of the Society; and shall report to the Annual General Meeting the state of the Society's funds, and other matters which may have come before them during the preceding year.

4. The Council may appoint committees or individuals to take charge of particular departments of the Society's business.

5. The Office-Bearers shall be elected annually at the General Meeting.

6. The Secretaries for general purposes shall record all the proceedings of meetings, whether of the Society or Council; and conduct such correspondence as may be authorised by the Society or Council, except the Foreign Correspondence, which is to be carried on, under the same authority, by the Secretaries appointed for that particular purpose.

7. The Treasurer shall receive and disburse all moneys due to or by the Society, and shall lay a state of the funds before the Council previous to the Annual General Meeting.

8. The duty of the Curators of the Museum shall be to exercise a general supervision over it and the Society's Collections.

9. The Council shall meet during the session as often as is requisite

for the due despatch of business ; and the Secretaries shall have power to call Meetings of the Council as often as they see cause.

III. MEETINGS OF THE SOCIETY.

1. One General Meeting shall take place every year on St Andrew's day, the 30th of November, or on the following day if the 30th be a Sunday.

2. The Council shall have power to call Extraordinary General Meetings when they see cause.

3. The Ordinary Meetings of the Society shall be held on the second Monday of each month, at Eight o'clock P.M. from December to April inclusive, and in May and June at Three P.M. The Council may give notice of a proposal to change the hour and day of meeting if they see cause.

IV. BYE-LAWS.

1. All Bye-Laws formerly made are hereby repealed.

2. Every proposal for altering the Laws as already established must be made through the Council ; and if agreed to by the Council, the Secretary shall cause intimation thereof to be made to all the Fellows at least three months before the General Meeting at which it is to be determined on.

LIST OF THE FELLOWS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND.

NOVEMBER 30, 1883.

PATRON.
HER MAJESTY QUEEN VICTORIA.

1853. *ABBOTT, FRANCIS, 25 Moray Place.
1879. ABERCROMBY, HON. JOHN, 21 Chapel Street, Belgrave Square, London.
1853. *ABERDEIN, FRANCIS, Keithock House, Brechin.
1858. *ADAM, ROBERT, City Accountant, Council Chambers.
1881. AGNEW, R. VANS, of Barnbarroch, Wigtownshire.
1877. AINSLIE, DAVID, of Costerton, Blackshiels.
1878. AITKEN, THOMAS, M.D., District Asylum, Inverness.
1864. ALEXANDER, Major-General Sir JAMES EDWARD, Knt. of Westerton,
Bridge of Allan.
1846. *ALEXANDER, Rev. WILLIAM LINDSAY, D.D., Pinkie Burn, Musselburgh.
1879. ALLEN, J. ROMILLY, C.E., 124 Buckingham Palace Road, London.
1865. ANDERSON, ARTHUR, M.D., C.B., Inspector-General of Hospitals, Pit-
lochrie.
1864. ANDERSON, ARCHIBALD, Advocate, 44 Connaught Square, London.
1882. ANDERSON, JOHN, MD., Superintendent of Indian Museum and Pro-
fessor of Comparative Anatomy, Calcutta.

An asterisk (*) denotes Members who have compounded for their Annual Contributions.

1876. ANDERSON, J. STILL, Dalhousie Mains, Dalkeith.
 1871. ANDERSON, ROBERT ROWAND, Architect, 19 St Andrew Square.
 1865. ANDERSON, THOMAS S., Lingarth, Newburgh, Fife.
 1882. ANNANDALE, THOMAS, Professor of Clinical Surgery, University of
 Edinburgh, 34 Charlotte Square.
 1863. *APPLETON, JOHN REED, Western Hill, Durham.
 1870. ARCHER, THOMAS C., Director, Edinburgh Museum of Science and Art.
 1850. *ARGYLE, His Grace The Duke of, K.T.
 1878. ARMSTRONG, ROBERT BRUCE, 22 Athole Creecent.
1861. *BAIKIE, ROBERT, M.D., of Tankerness, 55 Melville Street.
 1877. BAILEY, J. LAMBERT, Solicitor, Ardrossan.
 1868. BAIN, JOSEPH, 24 Chesilton Road, Fulham, London.
 1879. BAIN, Sir JAMES, K.B., Park Terrace, Glasgow.
 1838. *BALFOUR, Col. DAVID, of Balfour and Trenaby, Orkney.
 1881. BALFOUR, J. H., M.D., LL.D., Emeritus Prof. of Botany, Inverleith House.
 1863. BALFOUR, JOHN M., of Pilrig, W.S., 4 Thistle Court.
 1873. BALFOUR, JOHN, of Balbirnie, Markinch, Fife.
 1883. BALFOUR, CHARLES BARRINGTON, of Newton Den and Balgonie, Scots
 Guards, London.
 1876. BALLANTINE, ALEXANDER, 42 George Street.
 1883. BALLINGALL, ANDREW HUNTER, W.S., Perth.
 1877. BANNERMAN, Rev. D. DOUGLAS, M.A., Free St Leonard's Manse,
 Perth.
1877. *BANNERMAN, H. CAMPBELL, M.P., 6 Grosvenor Place, London.
 1866. BARNWELL, Rev. EDWARD LOWRY, M.A., Melksham, Wilts.
 1880. BARRON, JAMES, Editor of *Inverness Courier*, Inverness.
 1883. BAXTER, JAMES CURRIE, S.S.C., 45 Heriot Row.
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- 1882. BLACK, WILLIAM GEORGE, 1 Alfred Terrace, Hillhead, Glasgow.
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- 1879. BLANC, HIPPOLYTE J., Architect, 73 George Street.
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1878. PETERS, Rev. W., M.A., The Manse, Kinross.
1882. PETRIE, DAVID, 28 Nelson Street.
1883. PITT-RIVERS, Major-General A., 4 Grosvenor Gardens, London.
1878. PREVOST, Col. T. W., 25 Moray Place.
1881. PRICHARD, Rev. HUGH, Dinani, Gaerwen, Anglesea.
1860. *PRIMROSE, Hon. BOUVERIE F., C.B., 22 Moray Place.
1878. PRINGLE, JOHN, M.D., Dep.-Inspector-General of Hospitals, 27 Rutland
Square.
1878. PRYDE, DAVID, LL.D., 10 Fettes Row.

1882. MILLAR, ALEXANDER H., 6 Norman Terrace, Downfield, Dundee.
1876. MILLAR, WILLIAM WHITE, S.S.C., 16 Regent Terrace.
1883. MILLER, GEORGE, C.A., Acre Valley, Torrance, Stirlingshire.
1878. MILLER, GEORGE ANDERSON, W.S., Knowehead, Perth.
1866. MILLER, PETER, Surgeon, Bellevue Terrace.
1851. *MILLER, SAMUEL CHRISTIE, of Craigentenny, 21 St James's Place
London.
1883. MILLER, WILLIAM, S.S.C., 59 George Square.
1867. MITCHELL, ARTHUR, M.D., LL.D., Commissioner in Lunacy, 34 Drum-
mond Place,—*Vice-President*.
1880. MITCHELL, CHARLES, Kintrockat, Brechin.
1851. *MONTEITH, ROBERT I. J., of Carstairs, Lanarkshire.
1851. *MONTGOMERY, Sir GRAHAM G., Bart., Stobo Castle, Peeblesshire.
1867. *MORAY, CHARLES HOME DRUMMOND, of Abercairny, Perthshire.
1877. *MORAY, HENRY E. H. DRUMMOND, yr. of Blair-Drummond.
1867. MORICE, ARTHUR D., Advocate, 34 Marischall Street, Aberdeen.
1882. MORRIS, JAMES ARCHIBALD, Architect, Ayr.
1882. MORRISON, HEW, Smith's Institution, Brechin.
1877. MUDIE, JAMES, Craiggowan, Broughty Ferry.
1883. MUDIE, DAVID COWAN, 10 Dalrymple Crescent.
1877. MUIRHEAD, ANDREW, 56 Castle Street.
1872. MUIRHEAD, J. J., Ramsay Lodge.
1874. MUNRO, CHARLES, 18 George Street.
1879. MUNRO, ROBERT, M.D., Kilmarnock.
1879. MURDOCH, JAMES BARCLAY, Hamilton Place, Langside, Glasgow.
1883. MURDOCH, W. G. BURN, 18 Merchiston Park.
1878. MURRAY, DAVID, M.A., 169 West George Street, Glasgow.
1853. *MURRAY, THOMAS GRAHAM, W.S., 11 Randolph Crescent.
1863. *MYLNE, ROBERT WILLIAM, Architect, Whitehall Place, London.
1864. NEILSON, JOHN, W.S., 23 East Claremont Street.
1876. *NEPEAN, Sir MOLYNEUX, Bart., Duddingstone House.
1861. *NICOL, ERSKINE, R.S.A., 24 Dawson Place, Bayswater, London.
1875. NICOL, GEORGE H., Tay Beach Cottage, West Ferry, Dundee.
1875. NICOLSON, ALEXANDER, LL.D., Sheriff-Substitute, Kirkcudbrightshire.
1877. NIVEN, ALEXANDER T., C.A., 8 Fountainhall Road.

- 1876. SCOTT, CHARLES, Advocate, 9 Drummond Place.
- 1879. SCOTT, Rev. DAVID, F.C. Manse, Saltcoats.
- 1881. SCOTT, J. OLDRID, Architect, 31 Spring Gardens, Charing Cross, London.
- 1881. SEMPLE, ANDREW, M.D., 8 Abercromby Place.
- 1848. *SETON, GEORGE, Advocate, St Bennet's, Greenhill Gardens.
- 1869. *SHAND, Hon. Lord, 30 Heriot Row.
- 1879. SHAND, JOHN, M.D., 34 Albany Street.
- 1864. SHAND, ROBERT, Teacher, 45 Mill Street, Perth.
- 1873. SHIELDS, JOHN, 11 Melville Street, Perth.
- 1878. SHIELL, JOHN, Solicitor, 19 Windsor Street, Dundee.
- 1880. SHIELLS, R. THORNTON, Architect, 4 St Margaret's Road.
- 1882. SIBBALD, JAMES R., 12 Napier Road.
- 1879. SIBBALD, JOHN, M.D., Commissioner in Lunacy, 3 St Margaret's Road.
- 1879. SIBBALD, JOHN EDWARD, 8 Ettrick Road.
- 1875. SIDEY, CHARLES, 21 Chester Street.
- 1878. SIDEY, JAMES A., M.D., 20 Heriot Row.
- 1860. *SIM, GEORGE, 9 Lauriston Lane,—*Curator of Coins*.
- 1871. *SIMPSON, ALEX. R., M.D., Professor of Midwifery, University of Edinburgh, 52 Queen Street.
- 1870. SIMPSON, GEORGE BUCHAN, Seafield, Broughty Ferry.
- 1880. *SIMPSON, ROBERT R., W.S., 8 Bruntsfield Crescent.
- 1883. SINCLAIR, JAMES AUGUSTUS, 20 Bon-Accord Terrace, Aberdeen.
- 1878. SKEETE, HORACE, Solicitor, Perth.
- 1833. *SKENE, WILLIAM FORBES, LL.D., D.C.L., W.S., 27 Inverleith Row.
- 1876. SKINNER, WILLIAM, W.S., City Clerk, 35 George Square.
- 1877. SKIRVING, ADAM, of Croys, Dalbeattie.
- 1879. SMAIL, JAMES, Banker, Kirkcaldy.
- 1870. SMALL, DAVID, Solicitor, Gray House, Dundee.
- 1873. SMALL, JOHN, M.A., Librarian to the University, 10 Carlton Terrace.
- 1880. SMALL, J. W., Architect, Beith, Ayrshire.
- 1874. SMART, JOHN, R.S.A., 13 Brunswick Street, Hillside.
- 1877. SMITH, JAMES T., Duloch, Inverkeithing.
- 1882. SMITH, J. GUTHRIE, Advocate, Sheriff of Aberdeen, Kincardine, and Banff, 20 Drumsheugh Gardens.
- 1874. SMITH, J. IRVINE, 20 Great King Street.
- 1858. *SMITH, ROBERT MACKAY, Bellevue Crescent.
- 1874. *SMITH, R. ANGUS, Ph.D., LL.D., 27 York Place, Manchester.

1882. SMITH, Rev. W. ROBERTSON, LL.D., 20 Duke Street.
 1866. SMYTHE, WILLIAM, of Methven, Methven Castle, Perthshire.
 1874. SOUTAR, THOMAS, Banker, Crieff.
 1864. SOUTAR, WILLIAM SHAW, Banker, Blairgowrie.
 1882. *SOUTHESK, Right Hon. the Earl of, Kinnaird Castle, Brechin.
 1873. *SPOWART, THOMAS, of Broomhead, 7 Coates Crescent.
 1882. SPRAGUE, THOMAS B., M.A., 29 Buckingham Terrace.
 1872. *STAIR, Right Hon. The Earl of, Lochinch, Wigtownshire,—*Vice-President*.
 1875. STARKE, JAMES GIBSON, M.A., Advocate, Troqueur Holm, Dumfries.
 1874. *STEEL, Capt. GAVIN, 7 Grosvenor Crescent, Edinburgh.
 1872. STEEL, NEIL, Merchant, Constitution Terrace, Dundee.
 1872. *STEVENSON, ALEXANDER SHANNAN, Tynemouth.
 1875. STEVENSON, JOHN A., M.A., 37 Royal Terrace.
 1867. *STEVENSON, JOHN J., Architect, 3 Bayswater Hill, London.
 1855. *STEVENSON, THOMAS, C.E., 17 Heriot Row.
 1876. STEWART, Rev. ALEXANDER, Manse of Ballachulish.
 1883. STEWART, CHARLES, Tigh'n Duin, Killin.
 1879. STEWART, CHARLES POYNTZ, Oxford and Cambridge Club, Pall Mall.
 1874. STEWART, CHARLES, Sweethope, Musselburgh.
 1848. *STEWART, HOPE J., Stonyhill House, Musselburgh.
 1881. STEWART, JAMES R., Exchequer Chambers.
 1880. STEWART, J. A., 6 Constitution Terrace, Dundee.
 1871. *STEWART, Major J. M. SHAW, R.E.
 1876. STEWART, ROBERT BUCHANAN, 11 Crown Terrace, Dowanhill, Glasgow.
 1881. STEWART, T. GRAINGER, M.D., Professor of Practice of Physic and Clinical Medicine, 19 Charlotte Square.
 1880.* STIRLING, Capt. PATRICK, yr. of Kippendavie.
 1883. STITT, JOHN J., Woodburn House, Dalkeith.
 1882. STORY, Rev. R. HERBERT, D.D., Rosneath, Helensburgh.
 1883. STRACHAN, JOHN, M.D., Dollar.
 1867. *STRATHMORE, Right Hon. The Earl of, Glamis Castle, Forfarshire.
 1850. *STRUTHERS, Rev. JOHN, LL.D., Minister of Prestonpans.
 1883. STUART, GEORGE BALLINGAL, M.B., Surgeon, Grenadier Guards, London.
 1878. STURROCK, JOHN, Engineer-Surveyor, 3 Rustic Place, Dundee.
 1882. STURROCK, PETER, Provost of Kilmarnock.
 1867. *SUTHERLAND, His Grace The Duke of, K.G.

1876. SUTHERLAND, Rev. GEORGE, The Parsonage, Portsoy.
 1880. SUTHERLAND, GEORGE MILLER, Solicitor, Wick.
1851. *SWINTON, ARCHIBALD CAMPBELL, of Kimmerghame, LL.D., Advocate.
 1863. *SWITHINBANK, GEORGE E., LL.D., Ormleigh, Mowbray Road, Upper Norwood, London.
1873. TAYLOR, JAMES, D.D., 6 Ettrick Road.
 1860. *TAYLOR, JAMES, Starley Hall, Burntisland.
 1881. TAYLOR, MICHAEL W., M.D., Hutton Hall, Penrith.
 1870. TEESDALE, Rev. FREDERICK D., Gordon Villa, Inverness.
 1870. *TENNANT, CHARLES, M.P., of the Glen, Innerleithen.
 1870. THOMAS, Captain F. W. L., R.N., Rosepark, Trinity.
 1874. THOMS, GEORGE HUNTER, Advocate, Sheriff of Orkney, 52 Great King Street.
 1867. THOMSON, LOCKHART, S.S.C., 114 George Street.
 1882. *THOMSON, MITCHELL, 7 Carlton Terrace.
 1875. *THOMSON, Rev. ROBERT, Niagara Falls, South Ontario, Canada.
 1878. THOMSON, WILLIAM, 23 Great King Street.
 1865. TROUP, WILLIAM, Eastwell, Bridge of Allan.
 1877. TUKE, JOHN BATTY, M.D., 20 Charlotte Square.
 1882. TULLOCH, Rev. JOHN, D.D., LL.D., Principal of the University of St Andrews.
 1869. *TURNBULL, JOHN, of Abbey St Bathans, W.S., 49 George Square.
 1880. TURNER, FREDERICK J., Mansfield, Notts.
 1865. TURNER, WILLIAM, M.B., Professor of Anatomy, University of Edinburgh, 6 Eton Terrace.
 1881. TWEEDDALE, The Most Honourable The Marquess of, Yester House, Haddington.
1878. URQUHART, JAMES, H.M. General Register House.
 1882. USHER, Rev. W. NEVILLE, 27 Walker Street.
1862. *VEITCH, GEORGE SETON, Bank of Scotland, Paisley.
 1873. VEITCH, JOHN, M.A., LL.D., Professor of Logic, University of Glasgow.
 1877. VERNON, J. JOHN, Hawick.

1876. SUTHERLAND, Rev. GEORGE, The Parsonage, Portsoy.
 1880. SUTHERLAND, GEORGE MILLER, Solicitor, Wick.
1851. *SWINTON, ARCHIBALD CAMPBELL, of Kimmerghame, LL.D., Advocate.
 1863. *SWITHINBANK, GEORGE E., LL.D., Ormleigh, Mowbray Road, Upper Norwood, London.
1873. TAYLOR, JAMES, D.D., 6 Ettrick Road.
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 1881. TAYLOR, MICHAEL W., M.D., Hutton Hall, Penrith.
 1870. TEESDALE, Rev. FREDERICK D., Gordon Villa, Inverness.
 1870. *TENNANT, CHARLES, M.P., of the Glen, Innerleithen.
 1870. THOMAS, Captain F. W. L., R.N., Rosepark, Trinity.
 1874. THOMAS, GEORGE HUNTER, Advocate, Sheriff of Orkney, 52 Great King Street.
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 1865. TURNER, WILLIAM, M.B., Professor of Anatomy, University of Edinburgh, 6 Eton Terrace.
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1878. URQUHART, JAMES, H.M. General Register House.
 1882. USHER, Rev. W. NEVILLE, 27 Walker Street.
1862. *VEITCH, GEORGE SETON, Bank of Scotland, Paisley.
 1873. VEITCH, JOHN, M.A., LL.D., Professor of Logic, University of Glasgow.
 1877. VERNON, J. JOHN, Hawick.

1874. WALKER, ALEXANDER, 25 Dee Street, Aberdeen.
 1859. *WALKER, FOUNTAINE, Ness Castle, Inverness-shire.
 1879. WALKER, JAMES, 74 Bath Street, Glasgow.
 1881. WALKER, J. RUSSELL, Architect, 63 Hanover Street.
 1871. *WALKER, PETER GEDDES, 2 Airlie Place, Dundee.
 1848. *WALKER, WILLIAM, Surgeon, 47 Northumberland Street.
 1861. *WALKER, WILLIAM STUART, of Bowland, 125 George Street.
 1879. WALLACE, THOMAS D., Rector of High School, Inverness.
 1872. WARDEN, ALEXANDER JOHNSTON, Marybank House, Broughty Ferry.
 1879. WARDEN, Major-Gen. ROBERT, C.B., 4 Lennox Street.
 1849. *WARE, TITUS HIBBERT, Stamford Road, Bowdon, near Altrincham
 Lancashire.
 1876. WATERSTON, GEORGE, jun., 14 St John's Hill.
 1870. WATSON, CHARLES, Writer, Dunse.
 1873. WATSON, JOHN KIPPEN, 14 Blackford Road.
 1875. WATSON, WILLIAM, 6 Douglas Crescent.
 1856. *WEBSTER, JOHN, Advocate, 42 King Street, Aberdeen.
 1879. WEDDERBURN, J. R. M., M.A., W.S., 32 Albany Street.
 1877. WEIR, HUGH F., of Kirkhall, Ardrossan.
 1877. WELSH, JOHN, S.S.C., 1 Regent Terrace.
 1872. *WEMYSS AND MARCH, Right Hon. The Earl of.
 1880. WENLEY, JAMES ADAMS, 5 Drumsheugh Gardens.
 1880. WHITE, JOHN FORBES, 107 King Street, Aberdeen.
 1869. WHITE, Major T. P., R.E., 7 Carlton Crescent, Southampton.
 1867. WHITE, ROBERT, Procurator-Fiscal, Forfar.
 1871. WILLIAMS, WILLIAM EDWARD, Architect, 2 Ludgate Hill, London.
 1870. WILSON, CHARLES E., LL.D., H.M. Inspector of Schools, 19 Palmerston
 Place.
 1872. WILSON, GEORGE, S.S.C., 16 Minto Street.
 1875. WILSON, WILLIAM, West Lodge, Pollockshields.
 1861. *WILSON, WILLIAM, of Banknock, Stirlingshire.
 1852. *WISE, THOMAS A., M.D., Beulah Hill, Upper Norwood, London.
 1863. WISHART, EDWARD, 1 York Road, Trinity.
 1883. WOOD, THOS. A. DOUGLAS, Viewforth, Brunstane Road, Joppa.
 1880. WOOD, JOHN MUIR, 22 Belhaven Terrace, Glasgow.
 1875. WOODBURN, J., M.A., Drumgrange, Patna, Ayr.
 1878. WOODWARD, Rev. JOHN, Union Place, Montrose.
 VOL. XVII.

1867. WRIGHT, Rev. ROBERT, D.D., Starley Burn House, Burntisland.
1881. YOUNG, ALEXANDER, 9 Lynedoch Place, Glasgow.
1881. YOUNG, JOHN WILLIAM, W.S., 22 Royal Circus.
1878. *YOUNGER, ROBERT, 15 Carlton Terrace.

LIST OF HONORARY MEMBERS

1871.

SOCIETY OF ANTIQUARIES OF SCOTLAND.

NOVEMBER 5, 1886.

[According to the List the number is increased to TWENTY-ONE.]

1870.

DANIEL WILSON, LL.D., Principal and Professor of English Literature,
University College, Toronto, Canada.

1855.

Major-General Sir HENRY C. RAWLINSON, K.C.B., D.C.L., & F.R.S.,
Berkley Square, London.

1857.

WILLIAM REEVES, D.D., Dean of Armagh, The Rectory, Tyrone, Armagh.

1860.

Dr RICHARD LEPSIUS, Berlin.

1862.

5 HIS ROYAL HIGHNESS ALBERT EDWARD, PRINCE OF WALES.
The PRINCE LOUIS LUCIEN BONAPARTE.

1864.

ALEXANDER J. BERESFORD HOPE, Esq., M.P., Ark & H. Lee, Commercial
Place, London.

1865.

Sir HENRY DRYDEN, Bart., Canons Ashby, Byfield, Northamptonshire.
VOL. XVII.

WASH STATE

PROCEEDINGS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

HUNDRED AND THIRD SESSION, 1882-83.

ANNIVERSARY MEETING, 30th November 1882.

PROFESSOR DUNS, D.D., in the Chair.

The Right Honourable the EARL OF SOUTHERS was admitted a Fellow of the Society without Ballot.

A Ballot having been taken, the following Gentlemen were admitted Fellows :—

JOHN ANDERSON, M.D., Superintendent of the Indian Museum, and
Professor of Comparative Anatomy, Calcutta.

JOHN B. BUIST, M.D., 2 Grosvenor Street.

JOHN JAMES BURNET, Architect, 167 St Vincent Street, Glasgow.

WALTER J. DOUGLAS CAMPBELL of Blythwood, Inverclyde, Loch
Awe.

REV. ALEXANDER CAMEROX, F.C. Manse, Brodick.

WALTER KIDMAN FOSTER, 45 Leinster Gardens, London.

CHARLES HENRY FOX, M.D., The Beeches, Brighthelm.

THOMAS H. COCKBURN-HOOD, Walton Hall, Kelso.

WILLIAM MACKEAN, 8 Garthland Place, Paisley.

WILLIAM MILLER, S.S.C., 59 George Square.

DAVID COWAN MUDIE, 10 Dalrymple Crescent.

JAMES PARLANE of Appleby, Wigtownshire.

Major-General A. PITT RIVERS, Rushmore, Salisbury.

ANDREW ROBERTS, Langside, Glasgow.

JAMES B. READMAN, 9 Moray Place.

CHARLES STEWART, Tighnduin, Killin.

THOMAS A. DOUGLAS WOOD, Viewforth, Brunstane Road, Joppa.

The Office-Bearers for the ensuing year were elected as follows :—

Patron.

HER MAJESTY THE QUEEN.

President.

THE MOST HON. THE MARQUIS OF LOTHIAN, K.T., LL.D.

Vice-Presidents.

R. W. COCHRAN-PATRICK, LL.D., M.P.

The Right Hon. the EARL OF STAIR.

ARTHUR MITCHELL, M.D., LL.D.

Councillors.

Sir J. NOEL PATON, Kt., LL.D., R.S.A., } *Representing the Board*
FRANCIS ABBOTT, } *of Trustees.*

Professor DUNS, D.D.

The Right Hon. the EARL OF ROSEBURY, LL.D.

ALEXANDER LAING, LL.D.

GILBERT GOUDIE.

Rev. W. ROBERTSON SMITH, LL.D.

ROBERT MUNRO, M.A., M.D.

JOHN J. REID.

Secretaries.

JOHN ALEXANDER SMITH, M.D.

JOHN RITCHIE FINDLAY.

JOSEPH ANDERSON, LL.D., *Assistant Secretary.*

Secretaries for Foreign Correspondence.

WILLIAM FORBES.

THOMAS DICKSON, H.M. General Register House.

ANNIVERSARY MEETING.

5

Treasurer.

DAVID DOUGLAS, 9 Castle Street.

Curators of the Museum.

ROBERT CARPRAE.

SIR WILLIAM FETTES DOUGLAS, P.R.S.A.

Curator of Coins.

GEORGE SIM.

Librarian.

JOHN TAYLOR BROWN.

Auditors.

ROBERT HUTCHISON.

JAMES MACDONALD, W.S.

Publisher.

DAVID DOUGLAS, 9 Castle Street.

The following list of the names of Fellows deceased was read by the Secretary :—

<i>Fellows.</i>	<i>Elected</i>
CHARLES BELL,	1875
J. J. MILLIDGE,	1872
J. FORBES MITCHELL of Thainston,	1878
JAMES NELSH of the Laws,	1860
Rev. WALTER WOOD, F.C. Minister, Elie,	1870

The Secretary then read to the Meeting the Annual Report to the Board of Trustees, approved by the Council, and ordered to be transmitted to the Lords of H.M. Treasury as follows :—

ANNUAL REPORT of the Society of Antiquaries of Scotland to the Honourable the Board of Trustees for Manufactures in Scotland, for the year ending 30th November 1882.

The Museum during the past year has been open as formerly, except

during the month of November, when it was closed as usual for cleaning and re-arrangement.

The following table shows the number of visitors for each month during the year, distinguishing between day visitors and visitors on the Saturday evenings, viz. :—

MONTHS.	DAY VISITORS.	SATURDAY EVENINGS.	TOTAL.
October.....	5,548	718	6,266
December.....	5,700	763	6,463
January.....	19,467	1,651	20,118
February.....	3,487	538	4,025
March.....	3,313	670	3,983
April.....	5,969	680	6,649
May.....	5,560	601	6,161
June.....	6,523	598	7,121
July.....	14,188	844	15,032
August.....	13,652	694	14,346
September.....	8,756	756	9,512
Total.....	92,163	7,513	99,676
Previous Year....	97,741	8,010	105,751
Decrease.....	5,578	497	6,075

During the year there have been presented to the Museum 439 articles of antiquity, and 2936 coins and medals, chiefly Scottish ; the Donations to the Library amount to 155 volumes of books and pamphlets.

Among the various Donations there may be specially mentioned the Collection of the late Adam Sim of Culter Mains, consisting of 344 articles, presented by Mrs White of Netherurd: the Collections of Treasure Trove from Montraive, Dumfries, Giffnock, Fortrose, Langhope and Wick, presented by the Lords Commissioners of Her Majesty's Treasury, through Mr John J. Reid, Queen's Remembrancer, and 54 volumes of the Archæological publications of the British Museum, presented by the Trustees of the Museum.

During the year 6230 articles of antiquity have been also added to the Museum, and 26 volumes of books to the Library, by purchase.

In consequence of the increasing number of objects thus annually added by Donation and Purchase, the space originally allotted to the Museum in 1859 has become quite insufficient for classification and exhibition.

The new Catalogue of the Museum is in preparation, but is retarded by the increasing difficulty of arrangement arising from the want of space.

(Signed) JOHN ALEXANDER SMITH, M.D., *Secretary*.
JOHN RITCHIE FINDLAY, *Secretary*.

MONDAY, 11th December 1882.

ARTHUR MITCHELL, M.D., LL.D., Vice-President, in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows :—

WILLIAM GEORGE BLACK, Hon. Sec., Glasgow Archæological Society.

ÆNEAS MACLEOD ROSS, Surgeon-Major, Nellore, India.

JOHN J. STITT, Woodburn House, Dalkeith.

The following articles, acquired by the Purchase Committee for the Museum and Library, during the recess from 17th June to 30th November 1882, were exhibited to the meeting :—

1. Two grotesque Wooden Figures (nutcrackers), one in the habit of a monk, $8\frac{1}{2}$ inches high, the other in a lay habit, $7\frac{1}{2}$ inches high.

2. Celt of Greenstone, $8\frac{1}{2}$ by $2\frac{1}{4}$ inches, somewhat cylindrical in form, but slightly flattened on the sides, from Canada ; and three arrow-heads of flint of common Canadian type.

3. Circular Brass Brooch, 2 inches diameter, with zigzag ornament of two lines of punched markings within a border of the same ; the pin made of a piece of iron wire, one end of which is rudely twisted round the rim of the brooch.

4. Highland Dirk, $17\frac{3}{4}$ inches in length, with carved and brass-mounted hilt.

5. Ivory Diptych representing the Nativity, the Crucifixion, the Adoration of the Magi, and the Coronation of the Virgin.

6. Ivory Cup, $4\frac{1}{2}$ inches high by 3 inches in diameter; the cup borne on the heads of figures in mail armed with sword and spear. The swords have finger guards, and one of the figures has a tall cylindrical hat and feather, and wears a cross and beads round his neck.

7. Wooden Candlestick, $11\frac{1}{2}$ inches high, with four feet and four projecting ornaments, terminating in beasts' heads, from Inverkeithing.

8. Basket-Hilt of a Sword, richly chased with floral patterns, and inlaid with silver.

9. Necklace of thirty-three large Amber Beads, varying from $1\frac{1}{2}$ to $\frac{3}{4}$ inch in diameter, with clasp of gilt filigree work, set with turquoises and garnets.

10. Highland Basket-Hilted Broadsword, 38 inches in length, the ribs and plates of the basket ornamented with rosettes of heart-shaped perforations, and the blade, double-edged, $1\frac{1}{2}$ inches wide at the hilt, and grooved in the middle for nearly half its length.

11. Venetian Basket-Hilted Broadsword, 38 inches in length, the ribs of the basket plain; the blade $1\frac{3}{4}$ inches wide at the hilt, marked with a star of eight points within a dotted circle, and grooved in the centre for nearly one-fourth of its length.

12. Dagger-like weapon of Cast-iron, made for the Irish rebellion in the end of last century. (Figured in Meyrick's *Arms and Armour*.)

13. Earthenware Jar, 15 inches high, 13 inches in greatest diameter, and $5\frac{1}{4}$ inches wide across the opening of the mouth, the outside marked horizontally with parallel streakings, dug up at Gullane.

14. Basket-Hilted Highland Broadsword, the ribs of the basket plain, total length of the weapon 44 inches, length of the blade 39 inches, width of the blade at the hilt $1\frac{3}{4}$ inches, the upper part of the blade triply grooved, marked with a dolphin, and bearing the following inscription in three lines, the words of which are divided by

small crosses, with a cross potent at the beginning and end of each line:—

FIDE SED
ANDRIA FARARA
CVI VIDE

13. Indian Weapon, a Pick or Halbard (fig. 1), consisting of a round iron handle 26 inches in length, carrying at one extremity a curved steel

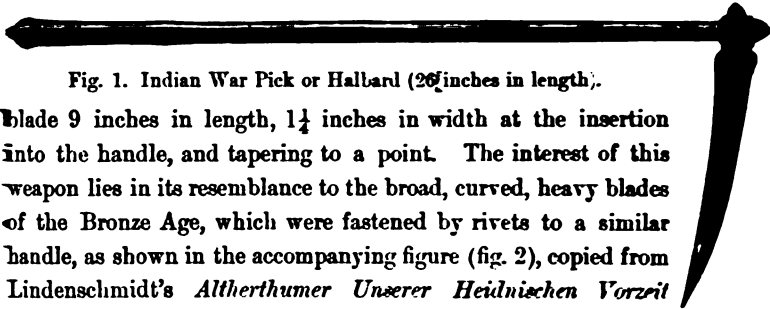


Fig. 1. Indian War Pick or Halbard (26 inches in length).

Blade 9 inches in length, $1\frac{1}{4}$ inches in width at the insertion into the handle, and tapering to a point. The interest of this weapon lies in its resemblance to the broad, curved, heavy blades of the Bronze Age, which were fastened by rivets to a similar handle, as shown in the accompanying figure (fig. 2), copied from Lindenschmidt's *Allherthumer Unserer Heidnischen Vorzeit* (Band iii. Heft vi. taf. 1, fig. 4), where five different examples are figured, found in different parts of Germany. The one here shown is about $27\frac{1}{2}$

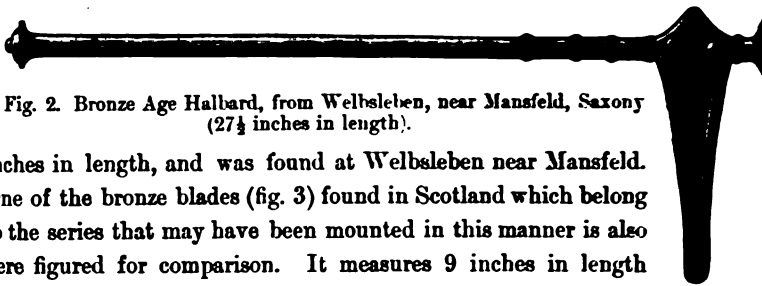


Fig. 2. Bronze Age Halbard, from Weltsleben, near Mansfeld, Saxony ($27\frac{1}{2}$ inches in length).

inches in length, and was found at Weltsleben near Mansfeld. One of the bronze blades (fig. 3) found in Scotland which belong to the series that may have been mounted in this manner is also here figured for comparison. It measures 9 inches in length and 4 inches in width at the hilt end, where it is incomplete, so that the number of rivet holes is uncertain. It was found in Galloway, and presented to the Museum by the Right Hon. the Earl of Stair in 1869. Another of these blades of bronze (fig. 4), found at Pitkaithley in Perthshire, is also figured for comparison. In this case, however, it is evident from the shortness of the two rivets, and marks on both sides of

the butt end showing the usual lunation of the hilt that it may have



Fig. 3. Bronze Blade found in Galloway
(9 inches in length).



Fig. 4. Bronze Blade found at
Pitkaithley, Perthshire (7
inches in length).

been hafted like a dagger. It measures 7 inches in length by 2 inches in greatest width, and $\frac{1}{4}$ of an inch in thickness down the tapering midrib.

The lower part of this projecting midrib is beautifully ornamented with a pattern characteristic of the Bronze Age.

15. Drinking Cup of Horn, 3 inches high by $2\frac{3}{4}$ inches diameter, with a hunting scene engraved on its exterior.

16. Highland Sporrán-Clasp of brass, semicircular, 5 inches in length, ornamented with knobs and pierced with heart-shaped openings. It is fitted with the ratchet-lock so commonly found in these sporrans.

17. Facsimiles of a Silver Chalice, Bronze Bowl, and four large Penannular Brooches of Silver, dug up at the Rath of Reerasta, near Ardagh, County Limerick, Ireland, in 1868, and now in the Museum of the Royal Irish Academy, Dublin.

These facsimiles have been executed by Mr Joseph Johnston, 10 Suffolk Street, Dublin, and the following is an abridgement of the account given by the Earl of Dunraven of the circumstances in which the articles themselves were found, as narrated in the *Transactions of the Royal Irish Academy*, vol. xxiv. pp. 433-454 :—

The Rath of Reerasta is of the usual character ; a circular earthwork, with an internal diameter of about 57 yards. It is on a small farm held by a widow of the name of Quinn, and has been partially levelled for tillage. About twenty years previous to 1868, she states that “ a beautiful chalice of gold ” was turned up about fifty yards west of the fort, but one day the children took it out to play with, and she never saw it again. In the end of September 1868 her son was digging potatoes in the fort at the south-western side. At one spot close to a thorn bush he felt the ground soft, and on driving down the spade it struck something hard, which turned out to be the bronze bowl. Clearing away the earth and roots, he thrust down his hand and grasped the long pin of one of the brooches. He then excavated to the depth of about three feet, and found the chalice lying in the earth, with a rough flagstone on one side of it, and inside or close to it were the bronze bowl and the four brooches. They were given up to the agent of the property, and afterwards purchased from the proprietor by the Government, and placed in the Museum of the Royal Irish Academy.

The chalice, which combines beauty of form with the most exquisite examples of almost every variety of Celtic ornamentation, is 7 inches in height and $9\frac{1}{2}$ inches in diameter. The foot is $6\frac{1}{2}$ inches in diameter, the depth of the bowl 4 inches, having a capacity of about 3 pints, liquid measure. The rim of the bowl of the chalice is of brass, cylindrical in form, the bowl itself of silver, almost semi-globular in form, and furnished with two broad massive handles, nearly semicircular in form, springing from the brim, with an opening of little more than an inch in diameter. Through these handles runs a band of ornamental work, bordered above and below with semi-cylindrical rings of silver, ornamented with small annular dots produced by a hollow punch. The space between these rings is filled by twelve plaques of gold wrought in patterns of interlaced work, sometimes in simple filigree, at other times in filigree work implanted, or wrought on the front of a ground of *repoussé* work. Between each of the twelve plaques are inserted a series of twelve projecting bosses of enamelled work, with *cloisonné* patterns of silver.

Below this band of ornamental work is an inscription in letters rather more than half an inch in height, delicately chased upon a stippled background :—

PETRI, PAULI, ANDRI, JACOBI, JOHANNIS, FILIPPI, BARTHOLOMEI,
THOMAE, MATHEI, JACOBI, TATHEUS, SIMON.

The arched surface of the handles is covered with plaques of red, blue, and yellow enamels, with *cloisonné* patterns in silver. Below each handle is an ornamental plaque divided into seven compartments, of which three are filled by circular projecting bosses of enamels with *cloisonné* patterns; the collars of the bosses surrounded by a band of fine gold chain-work, and by eight spaces formerly filled with amber; the remaining four compartments are filled with interlaced patterns, and the heads of the four rivets by which the whole plaque is fastened to the cup are concealed by settings of blue glass.

On the sides of the bowl, half-way between the opposite handles, are two discs of gold filigree scroll-work of the finest kind, arranged in the

spaces and interspaces of an equal-armed cross formed by the intersection of four semicircles, the centre of which is an enamelled boss similar to the others. The heads of the rivets fastening the disc to the bowl are concealed by settings of blue glass and amber.

The cylindrical stem of the chalice, which is very short, is encircled with a pattern of interlaced work beautifully executed in gilt bronze. A collar of similar work, decorated with interlaced and spiral patterns, unites the stem to the bowl above, and a similar collar unites it to the foot below.

The foot is of silver and circular, convex externally from the flattened rim of its base to the stem of the chalice. On the upper side the convex part is plain, and the exterior rim which surrounds the base is divided into eight panels filled alternately with plaques of gold and gilt bronze, decorated with pierced work of interlaced patterns or frets; behind these patterns pieces of mica are inserted, which throw out more clearly the very beautiful pierced designs with which these plaques are ornamented. Between each of the panels is a raised panel filled with enamels set in bronze.

It is a special peculiarity of this chalice that the inferior surface of the foot is as highly ornamented as any other part, if not more so, the reason being that when not in actual use the vessel would stand inverted. The inside of the foot has for a central ornament a large circular rock crystal, round which there had been a circle of amber divided into twelve tablets, with a partition of bronze between each tablet, the collar of the setting of the crystal being encircled with a band of plaited gold wires. The crystal forms a centre-piece in a circular disc of gold and gilt bronze, the whole surface of which is decorated with filigree or chased patterns of double spirals arranged in circular bands, with bosses of green enamels at intervals. The flattened circular rim of the base, like the upper or reverse side, is divided into eight panels filled with plaques of filigree work and plaited wire work. Between the plaques are square projecting settings of blue glass, "underneath which are ornamented pieces of wrought silver, which give them a brilliant appearance when in a strong light." The

whole number of pieces of which the chalice is composed is 354, including 20 rivets.

The forms of the letters in the inscription round the body of the chalice are found in Irish MSS. ascribed to the 9th century. The most characteristic part of the ornamental work is the circular plate in the inside of the foot of the chalice—a splendid example of the divergent spiral or trumpet pattern. Referring to the occurrence of this peculiarly Celtic design in Irish metal work of approximately known dates, the Earl of Dunraven gives it as his opinion that this pattern gradually died out from the middle of the 10th century until it entirely disappeared in works of the 12th century, and “we may fairly conclude,” he says, “that this most beautiful example of our ancient art was executed either in the 9th or 10th century.”

The smaller vessel found with it is of bronze, $5\frac{1}{2}$ inches diameter and $2\frac{1}{2}$ inches in depth. It is quite plain, and seemed, like the larger one, to have had a stem and foot, but having been broken by the spade and some portions lost, its original form cannot now be precisely determined. Of the four penannular brooches found with it, which are all of silver, gilt, and highly ornamented, the largest measures $13\frac{1}{2}$ inches in length by $5\frac{3}{4}$ in breadth. The body of the brooch is of the same form as those that are penannular with expanded ends, but the expanded ends are joined. The ornamentation, which is arranged in the same manner as if the division between the ends existed, consists of a series of panels of interlaced work, symmetrically arranged round a central triangular panel in each of the expanded ends of the penannular ring. The central panel in each is occupied by the figure of a broad-billed bird, raised and highly ornamented in the same style as the panels themselves. The free-standing heads and bills of these birds meet and form a cross with the heads and bills of two other birds placed in the line of the divisional opening between the expanded ends of the penannular ring which their bodies thus close and conceal. The expanded head of the pin is ornamented in the same manner with the raised figure of a bird surrounded by panels of interlaced work. This brooch is also peculiar in having four

enamelled bosses, not unlike those on the chalice, as part of its ornamentation, which is exceedingly rich throughout, and presents a wonderful variety of Celtic patterns. On the face of the brooch there are no fewer than 46 compartments, each filled with a separate design, and seven compartments on the pin.

The other two brooches are of the same form, but more distinctly penannular and less elaborately ornamented.

The fourth Brooch is also penannular, formed of a plain hammered cylindrical rod of silver terminating in globular ends, decorated with prickly ornaments in the manner of the thistle-headed brooches found at Skaill, Orkney. The head of the pin terminates in a similar globular expansion, with the same ornament.

18. Collection of Antiquities, &c., belonging to the Museum at Lerwick of the Shetland Literary and Scientific Society, comprising the following articles found in Shetland :—

Small chisel-shaped Celt of Basalt, nearly square in the cross section, and measuring $2\frac{1}{4}$ inches in length, $\frac{5}{8}$ inch in breadth, and $\frac{1}{2}$ inch in thickness.

Small Celt of Serpentine, 3 inches in length by $1\frac{7}{8}$ inches in breadth across the face, the cross section a flattened oval, pointed at the butt.

Celt of dark-coloured Greenstone, $4\frac{1}{2}$ inches in length by 2 inches across the face, oval in the cross section, fractured along one edge.

Lower portion of a chisel-shaped Celt of dark-coloured Greenstone, $3\frac{1}{4}$ inches in length by $1\frac{3}{4}$ inches across the face, the cross section oval, but with edges ground flat, the upper part broken straight across.

Adze-shaped Celt of Sandstone, 6 inches in length by 2 inches across the face, flat on one side, rounded on the other, and pointed at the butt, the surface weathered.

Celt of Porphyritic Stone, $7\frac{1}{4}$ inches in length by $3\frac{1}{4}$ inches across the face, the cutting edge slightly rounded, and the surface well polished.

Celt of dark Porphyritic Stone, $10\frac{1}{4}$ inches in length and 3 inches across

the cutting face, oval in the cross section and tapering to a pointed butt.

Large adze-shaped Celt of indurated Clay-stone (fig. 5) 14 inches in



length, 5 inches across the cutting face, nowhere more than $1\frac{1}{2}$ inches in thickness, and tapering to a pointed butt.

Adze-shaped Celt of Porphyry, $7\frac{1}{4}$ inches in length by 3 inches across the face, flattish on one side, rounded on the other, tapering to a somewhat rounded butt, the cutting edge rounded.

Celt of Serpentine, $7\frac{3}{4}$ inches in length, $2\frac{1}{2}$ inches in breadth in the middle, tapering to the butt, the edge broken.

Celt of Basalt, 7 inches in length, $2\frac{1}{2}$ inches in greatest breadth, the cutting edge broken away.

Flattish roughly-shaped Celt of Porphyry, $5\frac{1}{2}$ inches in length by 3 inches in breadth across the cutting face, nowhere more than an inch in thickness.

Flat oval-shaped Knife of Serpentine, polished, 6 inches in length, 4 inches in breadth, and nowhere more than a

Fig. 5. Celt of Clay-stone (14 inches in length).

quarter of an inch in thickness, ground to a sharp edge on three sides, the fourth side also ground but not sharpened.

Celt of Porphyry (fig. 6), 11 inches in length by $4\frac{1}{4}$ inches across the face, the body of the celt slightly oval in the cross section, tapering to the butt and expanding considerably towards the cutting edge.



Fig. 6. Celt of Porphyry (11 inches in length).



Fig. 7. Celt of Serpentine ($11\frac{1}{2}$ inches in length).

Celt of Serpentine (fig. 7), somewhat adze-shaped, $11\frac{1}{2}$ inches in length, $2\frac{3}{4}$ inches broad at one end, $1\frac{3}{4}$ inches at the other, both ends similarly formed to a rounded cutting edge.

Flat oval-shaped Knife of Serpentine, polished, $5\frac{1}{2}$ inches in length, $4\frac{1}{4}$

inches in breadth, greatest thickness $\frac{5}{8}$ inch, ground sharp on three of its sides, the fourth side ground smooth but not sharp.

Celt of greyish Porphyritic Stone (fig. 8), 10 inches in length and 3 inches across the centre where it is widest, oval in section, tapering to a pointed butt, and also in the other direction to an ovaly-elongated cutting edge. It was found in 1854 at a depth of 6 feet, in cutting peats in the hill above Grimaster called Mount Bran, about two miles from Lerwick.



Fig. 8. Celt of Porphyrite
(10 inches in length).

Flat oblong Knife of Porphyritic Stone, polished, 5 inches in length, $3\frac{3}{4}$ inches in greatest breadth, nowhere more than half-an-inch in thickness, ground sharp on one edge only, the back thick and flattened and roughly ground.

Rubbing or Smoothing Stone of Basalt, somewhat celt shaped, $4\frac{1}{2}$ inches in length, 3 inches in breadth, and $1\frac{1}{4}$ inches in thickness, with polished surface, the faces convex, the sides flat, the butt rounded, the other end finished with two flattened facets extending the whole width of the face and meeting in a blunt edge.

Rounded Pebble of dark Greenstone, $4\frac{1}{2}$ by $3\frac{1}{2}$ inches, marked on the sides by use as a hammer or anvil stone.

Stone Ball of Quartzite, $3\frac{1}{4}$ inches diameter.

Weaver's Rubbing Stone of Basalt, an oblong water-worn pebble, naturally shaped, 6 inches in length.

Hammer Stone of Sandstone, an oblong water-worn pebble, $8\frac{1}{2}$ inches in length, abraded at one end.

Small shallow Cup of dark-coloured Stone, $3\frac{3}{4}$ inches in length by $2\frac{3}{4}$ inches in breadth and 1 inch deep, oval in shape, and ornamented round

the upper part of the flat rim by a kind of rope ornament; found with some flat knives at Luster, in Mid Yell.

Pair of oval bowl-shaped Brooches of Bronze (fig. 9), each 4 inches in length by $2\frac{1}{2}$ inches in breadth. They are single shelled, and decorated



Fig. 9. Oval Bowl-shaped Brooch, found at Clibberswick, Unst, Shetland (4 inches in length).

with six boldly projecting and pierced ornaments, and six studs, now gone, the fastenings of which are seen arranged round the central ornament. A rope-like moulding and two plain mouldings encircle the base of the brooch. Also a trefoil-shaped brooch (fig. 10), $2\frac{1}{2}$ inches long, with dragonesque ornamentation. These brooches, which are of distinctively Scandinavian types, were found at Clibberswick, in the north part of the island of Unst, along with a plain silver bracelet, thin, wide in the centre, and narrowing to the ends, and two glass beads, one circular, flattened, and formed of red, blue, and white glass, the other oblong, formed of lobes



Fig. 10. Trefoil-shaped Brooch of Bronze, found at Clibberswick in Unst, Shetland ($2\frac{1}{2}$ inches in length).

or rolls of twisted white and blue glass. The bracelet and beads have



Fig. 11. Polished Celt, one of three found together at Tingwall, Shetland
(10 $\frac{1}{4}$ inches in length).

disappeared since 1863, when they were described by Mr J. T. Irvine

in the *Proceedings* of the Archaeological Association, as given in their *Journal*, vol. xix. p. 312.



Fig. 12. Polished Celt, one of three found together at Tingwall, Shetland
(9 inches in length).

Also a collection of Savage Weapons, &c., comprising two War Clubs from the Fiji Islands ; a Dyak Sword and Sheath ; five Esquimaux Harpoon-heads and a Bow of Bone ; one Carved Feather Casket, and one

Carved Figure of a Human Head, from New Zealand; two Strings of Wampum, and a number of Indian Vessels and Utensils, from North America; seven Daggers from Central Africa, &c.

19. Three Polished Stone Celts, dug up together in the Glebe at Tingwall, Shetland. They are as follows:—



Fig. 13. Polished Celt, one of three found at Tingwall, Shetland ($6\frac{1}{2}$ inches in length).

No. 1 (shown half the actual size in fig. 11) is of dark-coloured porphyritic stone; $10\frac{1}{2}$ inches in length by $2\frac{3}{4}$ inches in width across the cutting face of the instrument, oval in the cross section, and tapering gradually to a roundly pointed butt.

No. 2 (which is also shown on the same scale in fig. 12) is of the same stone, measuring 9 inches in length by $3\frac{3}{4}$ in breadth across the cutting face of the implement, which expands suddenly about an inch from the edge, the body of the instrument oval in the cross section, and tapering gradually to a bluntly pointed butt.

No. 3 (shown as fig. 13) is also of the same stone, but smaller and more chisel shaped. It measures $6\frac{1}{2}$ inches in length by 2 inches in breadth, tapering to about $1\frac{3}{4}$ inches at the butt.

The implement is flatter on one side than the other, and curved longitudinally so as to be more adze shaped than axe shaped.

20. Collection of upwards of 2500 objects, chiefly of Worked Flint, &c., consisting of Arrow-heads, Knives, Scrapers, &c., and objects in metal consisting of Brooches, Pins, Needles, and Fasteners of Bronze or Brass, from the Culbin Sands, Elginshire.

21. Nicolaysen's Account of the Viking Ship dug up at Gokstad, near Sandefjord, Norway. 4to. Christiania, 1882.
22. Cesnola's Salamina: The History, Treasures, and Antiquities of Salamis in Cyprus. 8vo. London, 1882.
23. Forbes-Leith's Scots Men-at-Arms in France. 2 vols. 4to. Edinburgh, 1882.
24. Lyon's History of St Andrews. 2 vols. 8vo. Edinburgh, 1843.
25. Two Photographs of a Wooden Image found in the Parish of King Steignton, Devonshire.

The following Communications were read :—

I.

THE NEWTON STONE. BY THE RIGHT HON. THE EARL OF SOUTHESK, K.T., F.S.A. Scot.

Introduction.—For more than seventy years the inscribed pillar-stone at Newton has been familiarly known to antiquaries, yet, notwithstanding many attempts to decipher them, its two remarkable inscriptions remain unread. To what this may be owing—whether to insufficient care in some cases, or to erroneous theories, or to the use of faulty copies taken from casts and sketches—it is needless at present to inquire; it will be admitted that no complete or satisfactory reading has been offered by the many learned men who have written on the subject.

Through the kindness of Mr Gordon, the owner of Newton, I have had several opportunities for minute and lengthened study of the stone. I have also been supplied with photographs of the inscriptions, taken in presence of Mr Gordon and myself; some of which are from fresh points of view, to illustrate peculiarities in the lettering. These photographs are trustworthy in one important respect; I refer to the chalking required to bring out the forms clearly,—a process which has often led to error, for in photographs false chalk-marks can hardly be distinguished from true. In the present case, the scores and letters were very carefully chalked by myself, with Mr Gordon's help and advice, and anything that remained

doubtful, through wear or original imperfection, has been duly mentioned in my notes.

Aware of these advantages, and not unconscious of considerable labour in the collation of alphabets and in other modes of research, I submit with some hopefulness a new reading of the inscriptions; trusting that, at the least, my work may prove useful even to those who differ from me, and that abler scholars than myself will perfect what is faulty or incomplete.

At the beginning of my task the inscriptions seemed to be revealing themselves as brief sepulchral records, similar to those on the Irish and British monumental stones. As regards the Oghams and part of the Main Inscription this view is accurate, but I have discovered that the other part of the Main Inscription differs widely from the rest,—that it is a religious invocation, or at all events a sentence full of terms of a mythological and foreign character.

Knowing the tendency of modern scholarship to disallow the theories of such writers as Higgins, Vallancey, and Davies, who have striven, too often fancifully, to connect the creeds and languages of the East with those of Britain and Ireland, I should gladly have accepted less questionable conclusions: nevertheless truth must be followed; and in this case there may be gain in doing so, for if it can be shown that the old religions of Alban were allied to any known form of civilised Paganism, we may hope ere long to discover the meaning of the symbols on the Sculptured Stones.

Though unwilling to lengthen this paper, I find it difficult to treat so complex a subject except in considerable detail, and I must further ask leave to submit some prefatory remarks on the history and surroundings of the Newton Stone and on the nature of its inscriptions, also on certain forms of Paganism in their relations to one of the inscriptions,—for without such aids I fear lest my reading should be held too improbable to be worthy the attention I seek for it.

For brevity's sake, I have condensed my notes as far as possible, and for the same reason I have frequently abstained from strengthening or

qualifying my statements by references and citations or by expressions of doubt.

On these points I hope it will be understood—(1) that there is presumably competent authority for all my statements; (2) that I do not commit myself to the views of any writer, whatever use I may have made of his works; (3) that none of my remarks have a dogmatic meaning, even when they chance to bear the form of assertion.

List of the sources of information.

Ast,	for Astle, The Origin and Progress of Writing, 1842.
Bor.,	.. Borlase, Antiquities of Cornwall, 1776.
Brash,	.. Brash, The Celtic Inscribed Monuments of the British, 1872.
Bryant,	.. Bryant, Analysis of Ancient Mythology, 1877.
Elton,	.. Elton, Origins of English History, 1903.
Faul,	.. Faulmann, Das Buch der Schrift, 1860.
Fry,	.. Fry, Palaeographia, 1726.
Gea,	.. Gesenius, Scripturae Linguae Phoeniciae, 1857.
Herbert,	.. Herbert, Essay in the Neo-British History, 1828.
Higgins,	.. Higgins, The Celtic Inscriptions, 1894.
Hüb.,	.. Hübscher, Inscriptions Britanniae Antiquae, 1870.
H.S.D.,	.. Highland Society's Celtic Dictionary, 1890.
Keane,	.. Keane, Towers and Temples of Ancient Ireland, 1897.
King,	.. King, The Gaels and their Remains, 1902.
O'B.,	.. O'Brien, Irish Dictionary, 1818 and 1822.
O'Re.,	.. O'Reilly, Irish Dictionary, 1811.
Petrie,	.. Petrie, The Ecclesiastical Architecture of Ireland, 1841.
Prinsep,	.. Prinsep, Essays on Indian Antiquities, 1856.
Rawlinson,	.. Rawlinson, The Five Great Monarchies, 1872.
Sc. St.,	.. Sculptured Stones of Scotland, Spalding Club.
Skene,	.. Skene, The Four Ancient Books of Wales, 1902.
Stephens,	.. Stephens, The Old-Northern British Monuments, 1869-1868.
Taylor,	.. Taylor, Greeks and Goths, 1872.
West,	.. Westwood, Palaeographia sacra Helvetica.
Vall.,	.. Vallancey, Collectanea de Rebus Hibernicis, 1756-1818.
B. of Arm.,	.. Book of Armagh.
B. of Bal.,	.. Book of Ballymote.

Cf.,	for Compare.
Ins.,	„ Inscription.
Celt. var.,	„ Celtic, various.
Kil. alph.,	„ Kilmalkedar Alphabet.
M. Ins.,	„ Main Inscription, at Newton.
Min.,	„ Minuscule.
N. St.,	„ Newton Stone.
Ogh.,	„ Ogham.
Ogh. Ins.,	„ Ogham Inscription, at Newton.
Or. var.,	„ Oriental, various—chiefly ancient.
Pat. Nos.,	„ Pater Noster (in Greek letters, B. of Arm.).
S. St.,	„ Serpent Stone, at Newton.
St.,	„ Stone.
=	„ Equivalent to, or Signifies.
Var.,	„ Various.

Description and History.—The Newton Stone (*Sc. St.*, vol. i. pl. i.) is an unhewn boulder of iron-grey quartzose gneiss, flattened on the face, but otherwise of rounded forms; $6\frac{1}{2}$ feet in height above the ground, and about $5\frac{1}{2}$ feet in its general girth. On its face it bears an inscription of six horizontal lines in very peculiar characters, and towards its left angle there is another inscription comprising two perpendicular lines in Oghams. The stone at present stands on the lawn at Newton, in Aberdeenshire, about 70 yards from the house, in an easterly direction. Beside it stands another stone, very similar in size and character (*Sc. St.*, vol. i. pl. xxxvii.), engraven on which, beneath the symbolical double disc, there appears a large and beautifully-formed serpent, barred with the Z-shaped sceptre symbol.

The Newton Stone originally stood in a plantation near Shevack toll-bar, on the slope of a hill above Shevack Burn. Its inscriptions were first noticed about 1803, when a new road had been opened in the vicinity. It was moved to a site behind Newton House about 1837, and was placed in its present position in 1873.

The Serpent Stone *originally stood beside the Newton Stone*. This has never been doubted in the district, though written evidence of the fact is wanting. Some time during last century the stone was taken away

from Shevack, with intention, it is said, to use it elsewhere as a march-stone, but difficulty occurring in traversing a swampy place, it was finally left there, about three-quarters of a mile from its supposed destination. Its position on that site is noted in a Newton estate plan of 1760. About 1794 it was again moved, this time to the site behind Newton House. Tradition states that on its removal from Shevack, twelve oxen could scarcely drag it; whereas on its return, one man (John Beattie) with one old grey mare easily brought it back. This trivial story proves the existence of a belief in the association of the two stones, or, at all events, that the Serpent Stone had made a journey before its last removal. In 1873 the stones were placed together on their present site. It may be added, that at the trenching of the Shevack locality, about 1837, human remains were found buried in the earth within a few yards of the original site of the inscribed stone (*Sc. St.*, vol. i. p. 1).

The whole surrounding district of "The Garioch," as well as the parish of Culsalmond, to which these stones immediately belong, abounds to an extraordinary extent with the relics of ancient Paganism. From Shevack may be seen (where not hidden by recent plantations) the Moor of Carden, the site of the Logie-Elphinstone stones, one of which bears a circular Ogham inscription (*Sc. St.*, vol. i. pls. iii. iv.); the Standing Stone, on Candle Hill of Rayne; the Maiden Stone (*Sc. St.*, vol. i. pl. ii.); three great cairns, in different quarters; and the remarkable Celtic fortress of Dunnideer. There are sacred wells in the neighbourhood, stone circles, standing stones, level stones, sculptured stones,—too numerous to mention; overlooking all is the grand mountain mass of Bennachie, with huge ramparts of loose stones and other vestiges of antiquity on the "Mother Top," the highest of its three rocky summits.¹

The name Culsalmond is almost certainly Kil-Saman, the Temple of Baal-Saman,² a Phœnician, and otherwise Oriental, god,—a Solar deity,

¹ See footnote, p. 28.

² Various translated, Lord of the Heavens, or Lord Sun, or Lord of the Sun's-close, viz., at the end of summer. "Samhan answers to Mithras." He was the

related most usually to the gods of the Under-World, or of the Nocturnal Sun, such as Osiris, and Dionusos or Bacchus, to whom the serpent was especially consecrated. (*Information chiefly from Mr Gordon of Newton.*)

Mythology of the Main Inscription.—To borrow the words of a learned author,—“it seems to me to be impossible to doubt the intimate relationship which has subsisted in some way or other between the nations of Ireland and Britain, and the Asiatic nations, in former times” (Higgins, p. 183). As regards its early manifestations, this remarkable Orientalism must be here very briefly dealt with ; it may be ascribed to two principal causes : —(1) to the Asiatic origin of the Celtic settlers in Britain, and of other Aryan or Turanian tribes who preceded or followed them ; (2) to the existence and rule of a powerful priesthood, who held a religion, or religions, derived from the East, and maintained and developed by constant intercourse with Gaul and the rest of Europe—religions probably identical in their occult aspects with those which, under the name of Mysteries, prevailed for many ages throughout the ancient civilised world.

Our present concern is with times less remote ; it is with the half-century preceding the Christian era, and the five or six centuries immediately subsequent ; with the epochs of the Roman conquest of Britain ; of the rise and prevalence of Mithraism and other kindred worships ; of the withdrawal of the Romans, and of the troubles and dispersions that followed ; and, finally, of the contact of Christianity with Paganism, and the success of the former in nearly every portion of these islands.

Under the rule of the early Cæsars, a remarkable religious movement took place in the Roman empire, through which the popular modes of worship were superseded by pantheistic systems borrowed from Egypt and the East ; at first from Alexandria, in the form of the adoration of Serapis (the Sun, the universal god), conjointly with Isis (the Moon, the

Preserver, the Mediator between Oromasdes and Ahriman. The ancient Irish viewed him as the merciful judge of souls. The evening of the first day of November, still called “*Oidche Samhna*, or the night of Samhan,” was kept as his festival. (Higgins, p. 174.)

Earth, the universal goddess). Undoubted vestiges of the worship of Serapis exist in England, as well as in the other countries of the West.

About the same time there was brought to Rome another pantheistic system closely resembling the former—the worship of the Persian Mithras, which soon became all-prevalent, and extended itself especially over Gaul and Britain, where the remains, such as caves, bas-reliefs, and inscriptions, are very numerous, no less than twenty examples being recorded by Hübner, many of them along the Pictish Wall. The success of Mithraism need not seem marvellous, when we notice that, on the one hand, it greatly resembled the Druidical system, which was closely allied to the Mystery-worships of Ceres, Dionusos, &c., in the previous ages; and, on the other hand, showed many points of resemblance to Christianity (intentional or undesigned), besides approximating to the numerous forms of Gnosticism, which flourished, and in most cases decayed, during the first two or three centuries A.D. (Elton, pp. 348–351; King, pp. 47–72).

Mithraism, as we have seen, was largely accepted in the northern parts of England; and whatever doubts may attach to the writings of the Welsh bards, it will hardly be denied that some of them are ancient, and that such are faithful records of religious beliefs at some time influentially existent in Wales and in the Cymric parts of Alban; moreover, it seems pretty certain that the obscurer portions of the barlic utterances can be explained by reference to Mithraism and the ancient Mysteries, and only thus, unless we look on them as the ravings of lunacy or dotage.

Such indeed they may well appear, unless read with knowledge, as Taliesin, chief among these poets, himself anticipates:—"I am a clear singer," he exclaims; "I am steel; I am a *Druid* . . . I am a *serpent*; I am love; I will indulge in feasting. *I am not a confused bard drivelling*" (Skene, vol. i. p. 523). In his next poem he informs us that, besides many other things, he has been a salmon, a speckled white cock, a spade, and a grain of corn in a hen's womb; so his former warning was not out of place (Skene, vol. i. p. 532).

Granting the existence of Mithraism among the Cymric peoples of Britain, it remains to account for its presence in north-eastern Alban,

which was probably inhabited by races of a different type and language. As to this, two conjectures suggest themselves—either members of the Mithraic fraternity settled in those parts, by invitation, as the instructors of a less cultivated priesthood; or they took refuge there as fugitives from the many enemies that harassed the south after the departure of the Romans, and gained influence in the land of their adoption by force of superior knowledge and acquirements. In the whole island few places could be found more suitable for such a settlement than central Aberdeenshire and the neighbouring regions to the north,—a populated district out of the track of the most formidable invasions, one also where Christianity was slow in establishing itself, and where for a long period Paganism must have been exceptionally powerful, to judge by the extent and prevalence of very ancient religious remains.¹

Besides the unscripted megalithic structures to which I am here specially referring, this part of the country contains the great majority of the surviving specimens of the unhewn, crossless, *incised* symbol-bearing stones,—monuments which differ in type from the later chisel-hewn, cross-bearing, traceried and *embossed* stones, with almost as clear a difference as that of Greek work from Roman, or Roman from Gothic.

To explain the symbols on the sculptured stones, or account for their use so long after Christianity had practically superseded Paganism, is beyond my present task,—suffice it to say, that in Mithraism, or some kindred form of Pantheism, and its relations to Christianity, the answer to both queries may not improbably be found.

Returning to our proper subject, I will now hazard the conjecture that the Newton Stone, and its companion the Serpent Stone, may probably belong to the compound Pantheism of the fifth or sixth century A.D., the former stone expressing some of its mysteries in graven characters, and the latter doing so, as plainly to initiates, by means of sacred symbol.

¹ Bennachie (*v. ante*, p. 25), the name of the mountain that overlooks Newton, probably signifies Beinn-na-chiche (pro. keekh), the Mountain of the Breasts (*viz.*, those of Mother Nature. Cf. "Da-Chich-Danainne (the Mother of the Gods) . . . the mountains in Kerry called Paps." (Brash, p. 22—citing Ann. 4 MSS.)

Character of the Inscriptions.—The Ogham inscription (fig. 1), of two lines, comprises about twenty-two groups in the longer line, and about five in the shorter. The scores are long and clear, but rather rude and irregular; contrary to the Irish practice, the vowel-strokes are no shorter than the others; the slightness of slant in several of the groups renders their value uncertain. The presumably first and last strokes of the whole inscription are of doubtful existence. The reading runs from top to bottom of the longer line (as shown by Nos. 1–22 of fig. 1), and then (Nos. 23–28 of fig. 1) up the shorter, as if led round a loop, as Mr Skene and other learned Ogham scholars have surmised, and as seems to be indicated by a Y-shaped hyphen which connects the lines at their lower ends.

The Main Inscription (fig. 2) comprises about forty-five characters, in six horizontal lines towards the top of the stone; all are on the face of it, except the last four letters of line 2, which turn the angle, and appear by themselves on the side. The letters are clearly and neatly cut, in better style than the Oghams, apparently by an abler hand; some of them (notably in line 4) are more prominent than the rest, as if to mark important words. Each line ends with the end of a word. The characters are Greek, resembling those of the Irish MSS. in Latin language and Greek letters, of the fifth to the seventh century A.D., described by Mr Westwood as “singular-formed Irish-Greek letters, in which capitals and minuscules are strangely mingled together” (Westwood, *B. of Arm. Pat. Nos.*, &c.); also partly resembling the letters of the Kilmalkedar alphabet, characterised by Dr Petrie as “Græco-Roman or Byzantine characters of the fourth or fifth century” (Petrie, p. 134). Minuscule Greek letters, according to Astle, were seldom used, even in MSS., before the fourth century A.D. (Astle, p. 66).

About 500 B.C., the Gauls derived Greek letters from Massilia, and they commonly used those letters (though not the language) in the first century B.C. (*v. Cæsar*, &c.). Communication was known to have existed throughout the Druid hierarchy in Britain and Gaul, not to speak of other Celtic countries,—hence Greek letters might easily have been used at an early period in the northern parts of Britain.

From the character of its letters, the Newton Main Inscription may not

improbably be assigned to the period already mentioned—the fifth or sixth century A.D.—a time perhaps later than that assignable to most of the Ogham and Latin inscribed stones of England and Wales (*v. Hübner, &c.*), but which might fairly correspond with the development of the compound form of Mithraism that seems to express itself in the concluding lines.

A comparison of the two inscriptions shows close agreement between the Oghams and the first three lines of the other legend. The language of both appears to be Celtic; the chief words of both are alike, allowing for variations in spelling; and any grammatical differences may be dialectic or foreign. The purport thus far is that common to nearly all Ogham inscriptions—a sepulchral record, of the briefest and simplest wording.

The other three lines of the Main Inscription are of a different type.

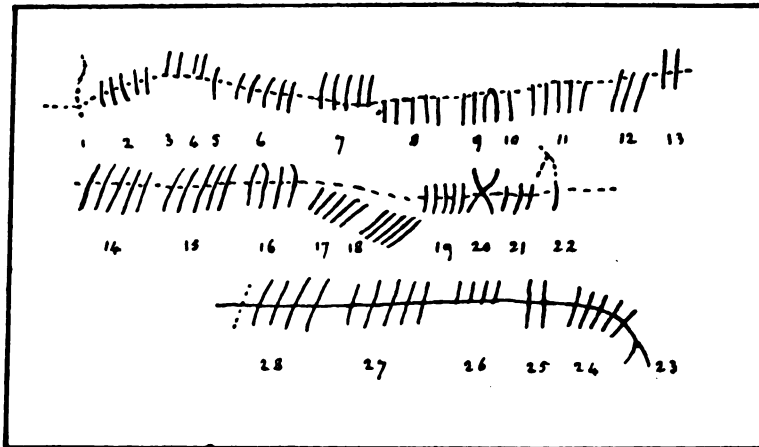


Fig. 1. Diagram of Ogham Inscription—Newton Stone.

(The third line of diagram should be reversed in reading the score, *e.g.*, No. 26 is S.)

A similarly genealogical rendering might perhaps be found, but the letters will not readily permit it, and a mythological version seems *prima facie*

preferable, considering the prominence of certain mystic characters which suggests a more exalted meaning for that part of the legend; considering also the strongly mythological character of every separate syllable in those particular lines.

It will now be my task (1) to analyse the inscriptions letter by letter; (2) to analyse and compare the Oghams and the first half of the Main Inscription word by word; (3) to analyse, word by word, the second half of the Main Inscription; after which I shall endeavour to summarise and explain the whole.

Ogham Inscription.

No. Value.

1. A. Probable; but doubtful, owing to a crack in the stone (Brash, p. 361; A).
2. I. Certain.
3. D. Certain.
4. D. Certain.
5. A. Certain.
6. I. Slightly sloped, might be R (Brash, R). In these inscriptions, Nos. 6, 12, 28, have an intermediate slant, which makes their value doubtful (see afterwards on No. 12). Nos. 6 and 28 end words, but No. 12 seems to be an initial.
7. Q. Nearly certain; might possibly be I, placed high as the initial of a word. Three of the scores slightly overpass the angle stem-line. (Brash Q.)
8. N. Nearly certain.
9. E. Taken with No. 10, this might form N, or even I, but the third and fourth strokes are joined above, as if to separate them from the fifth. (Brash is no guide here, having used a false copy. He makes Nos. 9, 10 = FEA.)
10. A. Certain, if disjoined from No. 9.
11. N. Nearly certain.
12. F. Intermediate slant; but it could hardly represent the practically unused letter NG. Admitting this, it follows that the slants in the present inscription require a treatment of their own, not in complete accordance with the Ballymote key. (Brash, F.)
13. O. Certain.
14. R. Certain.
15. R. Certain.

No. Value.

16. E. Not probably OO, though the scores seem paired. (Brash, E.)
17. R. Probably. (Brash, N, but the slope is strong.)
18. I. Perhaps R. This and the preceding group leave the angle of the stone, and require an imaginary stem-line. Both slope considerably, and in ordinary Oghams would stand for R. (Brash, N.)
19. I. Certain. A word clearly begins here.
20. BH. Either this or the letter P. P, as on the Crickhowel Stone (Hüb. p. 14), is preferable to the Ballymote EA; but aspirated B, which answers to P, seems best here. (Brash, EA; but elsewhere he doubts as to the true value of the character (pp. 59, 60).)
21. U. Seems certain; no trace of any score between this and No. 22. (Brash is here misled by a false copy.)
22. A. Seems certain. Below this the stone is rather rubbed, but there are no probable traces of scores.
23. >. A hyphen, which springs from No. 22 and from the last stroke of No. 21, as if to mark the continuation of the legend.
24. I. Here begins the short line of the inscription. The I seems nearly certain. (Brash, I.)
25. O. Certain.
26. S. Certain—the scores being now viewed from the right.
27. I. Certain. (Brash, S, A, but erroneously.)
28. E. Doubtful; probably I, if a fifth score exists, but perhaps R, as the group is slightly slanted. (Brash, R.)

Main Inscription: Analysis of the Letters.

1. Ai. This letter represents a vowel sound, either A or E, or the diphthong AI. The exact form does not occur in any known example. Most probably it is the unbarred and high-topped A, combined with a horizontal I; or the min. *ai* diphthong (*cf. æ* diphth., West., *B. of Kells*). Perhaps the F-shaped A (Gsa. Old Heb., Phen.; Faul., Iber.; for do. on side, *v. Coptic Tablet of Cyrillus*, Brit. Mus., and Marcommanic rune "*Asch*," Faul.); *cf. An. Sax. runes Ac and Æsc*. Perhaps the h-formed Eta, on its side (*cf. mixed Gr. and Lat. ins. on tin patera found at Bossens in Cornwall* (Bor., p. 317, pl. xxviii.); or possibly the two-barred Epsilon (Taylor, Old Gr.; Ast., Old Teut.; Hüb., p. 21, No. 58).
2. T. Gr. or Ir. T; transmutable with D, which, in Ir., double T seems generally to represent (*v. Brash*, p. 119).
3. T. Gr. or Ir. T.

No. Value.

4. Ai. Ai or A, v. No. 1. The difference between this and No. 1 is so slight that they may be considered identical letters.
5. F. Old Gr. F (Faul. var.). or Old Ir. do. (Kil. Alph., Petrie, p. 134). As compared with Nos. 1 and 4, the tail is longer, the top and whole upper part are more rounded, and the back line is differently carried.
6. U. Gr. min. U (Fry, Gr. 716 and 800 A.D.); also Old Ir. U (Kil. Alph.) and Old Gall. (Astle); also Brit. Bosses's Patern.
7. R. Gr. min. R, spread; or Old Ir. Kil. Alph.; or Cam. Brit. (Hub. var.).

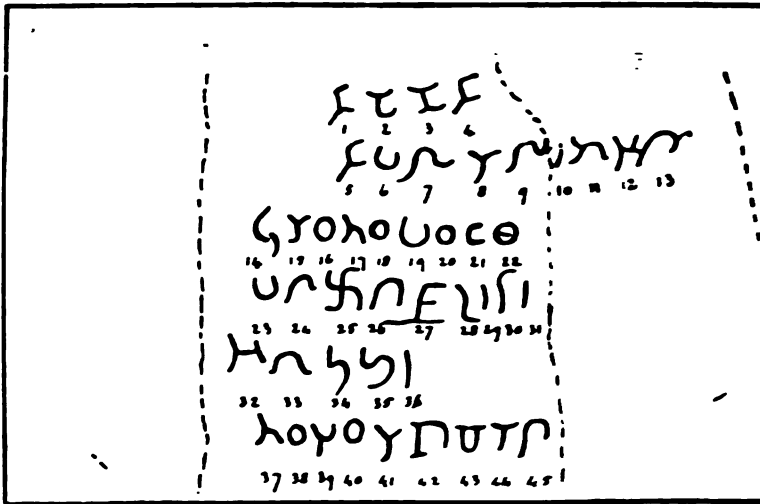


Fig. 2. Diagram of Main Inscription—Newton Stone.

8. Y. Gr. U fine, or Lat. Y (West., *B. of Arm. Gr. Pat. Nos.*); it seems to have a power between I and U in this inscription. The wide-headed I is not unknown (Fry, Lat. 500 A.D.; Gebelin, from "Dict. Ir., Paris, 1732"). The present letter differs from the Gr. or Ir. T, being a curve with a branch, rather than a stem with a head. The form is frequent in Anglo-Saxon MSS.
9. R. Gr. min. R, v. No. 7.
10. I. Gr. or Ir. I.

- No. Value.
11. N. Common min. N, with or without the upper stroke (Fry, Gr. c. 900 A.D. ; Kil. Alph. ; Hüb. var.). In the present case the stroke is an adjunct to the curve, and may be a mere hyphen to connect with the preceding letter, this part of the inscription being round the angle of the stone, perhaps as an addition. (Most copies omit this stroke, and substitute a natural crack below it, which runs from top of I to foot of N.)
 12. Gi. Gr. min. G (*v.* also Ast., Old. Gall.). A short horizontal line connects this with the next letter ; if not a hyphen, it may be I (or perhaps E) horizontal (Hüb. var.).
 13. N. Common min. N ; the same as No. 11, but with variation of the upper stroke (Fry, Gr. ninth cent. A.D. ; Hüb. var.). The branch-stroke and the end of the main curve being coarsely cut, their amount of curving is uncertain. The stroke might be a mere ornamental flourish.
 14. S. A known form of S. The curves are separate ; a flaw in the stone affects the lower curve, but it is fairly distinct. This G-formed S occurs in Cam. Brit. inscriptions (Hüb. var.—once with Oghams, p. 9, No. 24 ; also *v.* Ast., Old Gall.). Not impossibly the present letter may be the common C-shaped S, with an aspiration stroke below, to change the sound to Sh.
 15. Y. See No. 8.
 16. O. Gr. or Ir. O.
 17. L. Gr. min. L (also *v.* Ast., Goth., Old Gall. ; Fry, Lat. c. 500 A.D. ; Bor., Bossens Patera).
 18. O. See No. 16.
 19. U. See No. 6. This letter is prominently large, as if an initial.
 20. O. See No. 16.
 21. S. A well-known form of Gr. S, also Old Ir. (Kil. Alph.), and Old Ir.-Gr. (*B. of Arm. Pat. Nos.*). Does not seem to occur in Cam. Brit. inscriptions.
 22. E. The ordinary round Epsilon (Cam. Brit., Goth., Ir., Ir.-Gr.). This letter is deeply sunk, as if on the plane of an erasure. Perhaps it represents Oi—the horizontal I within O (*v.* Faul., Gr. abbrev., p. 174).
 23. U. See No. 6.
 24. R. Gr. min. R with opened loop. (Old Ir., Kil. Alph., and Ir.-Gr., *B. of Arm. Pat. Nos.*, resemble this form, but are more angular.)
 25. CHa. Probably the Gr. letter Chi, perhaps with a vowel. The form

No. Value.

- is widely used as a sacred symbol, termed *Swastika* or *Fylfot*,—also *Tetragrammaton* (as representing four Gr. *Gammæ*), also *Odin's Hammer*. Here the symbol seems to be used as a capital letter, and the analogies of the inscription would assign it a known Gr. form. It is very prominent, as if specially important. In a similar case Mr. Stephens doubtfully suggests that this "*Woden mark*" may have been used both as a talismanic symbol and as part of the writing (vol. ii. p. 551). As a rune it is *G* (*id. var.*).
26. N. See No. 11. This letter is wider spread and shorter tailed than the R of No. 24, which it otherwise resembles.
27. E. Gr. *Epsilon*, very prominent. The lower bar runs on a vein of quartz, and looks longer than it is.
28. L. Old Ir. L (Kil. Alph.; r. also *Stone of Lugnaedon*, Petrie, p. 165).
29. I. See No. 10.
30. S. Gr. S (Fry, c. 500 A.D.); Goth., and cf. Gall., (Astle); Cam. Brit. (*Hüb. var.*); also cf. *Bossens Patera*.
31. I. See No. 10.
32. M. Used throughout for M in Gr. Pat. Nos., *B. of Arm.*; also in Ir.-Gr. MSS. of fifth to seventh cent. A.D. (West., *B. of Arm.*). Occurs likewise on Coptic Tablet of *Cyrillus* (Brit. Mus.).
33. A. Unbarred A, common in the Cam. Brit. inscriptions (*Hüb. var.*). Compared with the R in No. 24, this letter is shorter at both ends, and more curved at the right end.
34. Z. Gr. min. Z (Fry, Gr. 800 A.D.); cf. modern Gr. min. If not Z, it might represent a form of the Lat. min. *h*.
35. D. Ir. D, with the lower loop shortened (cf. Old Gall., Astle); founded on Gr. min. Delta (v. Ir. ina. c. 950–1000 A.D., Petrie, pp. 327, 331). A different letter from the preceding, much fuller in the upper curves.
36. I. See No. 10.
37. L. See No. 17.
38. O. See No. 16.
39. G. See No. 12.
40. O. See No. 16.
41. Y. See No. 8.
42. P. Old Ir. P (Kil. Alph.), also Cam. Brit. (*Hüb.*, p. 52, No. 149); founded on Gr. cap. P. A prominent letter.
43. A. Occurs in this form in a Mercian Alph. from coins of *Eadwald* and *Offa* (Fry, p. 202). Perhaps it is the Q-shaped A turned upwards

No. Value.

- (v. st. of Lugnaedon, Petrie, p. 165 ; and cf. Cam.Brit. Ins., Hüb. var.); or the common round-topped A inverted (Hüb. var.).
44. T. Gr. min. T (Faul.). Resembles the T in the lower angle of the V-shaped sceptre which crosses a symbolical crescent on the Kinellar Stone (Sc. Sc., vol. i. pl. x.). It differs in the form of the top from Nos. 8 and 41, which represent Y.
45. R. See No. 24.

Comparison of the Inscriptions.

Ogh. (1) AIDDAI or IDDAI ; M. Ins. (line 1) AITTAI, ATTA, or ETTE : a female name, corresponding with Ada, Adda, Etté, &c. Compare "Ete Ingen Gillemichel" (*B. of Deer*, p. 93). Like most ancient proper names, the word is mythological, being derived from Ad, Aith, Eth, &c. (Or. var.) ; Light, Heat, Fire,—the Sun, the Sun-god,—Lord, or Chief. Cf. *Gr.* Aitho, to burn ; *Lat.* Æther, the sky ; *Eng.* Heat ; *Ir.* and *Sc.* Aith, a kiln, &c.

Adad (Or. var.), the Sun-god = Ad-ad, Most High, or Hadad, "the Only One." The circular Ogham ins. at Logie-Elphinstone—ATHAT BHOTO—may perhaps signify Adad Bhoddo, Lord Buddha or Boodh, *i.e.*, Sun ; but more probably ATHAT represents Adudh, a circle-fire (O'B), and, considering the predominance of the accompanying crescent-symbol, BHOTO may be a Moon-name, resembling Butha (*Ir.*, Val. v. 39), or the classical and Egyptian Buto. Cf. such place-names as Carbuddo, Monboddo, &c. (*Vide* my letter in *Athenæum*, July 29, 1882.) The feminine of Adad is Ada, which was a title of the Babylonian chief-goddess.

Ogh. (2) QNEAN ; M. Ins. (l. 2) INGIN, or NGIN : Daughter. Ingin, Inghean, &c., a daughter, derives from Gean, offspring (like *Lat.* Genitum), and In, *by transposition* for Nigh, daughter (O'B.). Nian, Nion, &c. (for Nighean), a daughter, are forms of the same word (O'R., H.S.D.). Q is a known abbreviation for CU (O'Donovan, *Ir. Gram.*) ; also, in Ogh. inscriptions Q generally stands for K or another guttural ; thus Qnean may here represent Cun-(g)ean or Gn-(g)ean ; *i.e.*, Gean, offspring, with a feminine prefix taken from Coinne, or Gnae (O'B., O'R.), a woman : or it may be another form of abbreviated Nigh-gean ; or, otherwise, should

the initial letter be read I, not Q, Inean might be a contraction of the same word.

* In M. Ina, the position of Ingin after the father's name seems unusual, but (1) this may be an early or dialectic form, or it may be designedly Oriental; there is an illustrative case in Irish:—"Most of the Cuthite compounds" (writes Mr Keane, referring chiefly to the names of saints) "have the adjective prefixed to the noun. In this respect the idiom agrees with that of the Sanscrit" (Keane, p. 50). (2) Ingin is the only word of M. Ina. not on the *face* of the stone,—in the photograph it shows by itself on the side; it may have been added to clear the sense, and there was no room elsewhere. The I may perhaps serve as initial for this word, as well as genitive final for the preceding,—unless, indeed, the horizontal stroke of the first N denotes I. The horizontal stroke connecting G and final N, may represent either E or I.

Ogh. (3) FORRERI or FORRER; M. Ina. (l. 2) FURTRI or FURTR: Forar. This name occurs on Ogh. ina. stone at Ballyhank, Co. Cork: "Alal mocui Forar Tigurn"—Ailil, son of Forar, chief—"of the same type as Foran, Foras, &c." (Brash, pp. 141, 142). Compare Varar *Æstuarium* (Moray Firth), Strath-Farrar, &c.

Ogh. (4) IBH, or IP; M. Ina. (l. 3) SYOL: Race or Tribe. "Ibh, a country, also a tribe of people" (O'B.). The word here might be Ip (Welsh, Ap; St Vigean's stone, Ipe; son, descendant), which yields the same sense. The value of Ogh. X is uncertain. In B. of Ball. it = Ea; on Crickhowel stone (Wales) it = P in the Latin Turpilli. Sometimes, perhaps, it is "a variation in G," or "a divisional point" "According to the Uraceipt, P is an aspirated B, and the proper mode of writing it was BH" (Brash, pp. 59, 60). The Ogh. X is common in Irish inscriptions, and must often differ in value from any of the above; perhaps it is sometimes used as a contraction, or as an aspiration.

In M. Ina, SYOL is "Siol; Seed, issue, a tribe or clan" (O'B.).

Ogh. (5) UA; M. Ina. (l. 3) O: Descendants. "Ua signifies any male descendants thus Ua-Neil, the son, or of the posterity of, Neil. In latter ages this word Ua has been changed into O, as O'Neil, &c." (O'B.)

Ogh. (6) IOSIE, IOSII, or IOSIR; M. Ins. (l. 3) UOSE or UOSOI: HUAS. The name of a deity:—Huas, Hu, or Beli (Wel.)=Huēs or Dionusos (Gr.); Uasar or Osiris (Egypt.); Diannisu (Assyr.); Deonaush (Sans.); Oschen or Mithras (Pers.),—names mostly related. A solar god, usually the Nocturnal Sun; a generative god, the Male Principle in nature; Lord of heat and moisture; Patron of the vine and of all geniality. In one view, the Universal Father; in another, the Mediator and Messiah; in another, the Ruler of the lower world, and Judge of souls. The Serpent or Dragon god, the Bull god—("Hu, the Bull of Flame"—Wel.).

Derived from Aes, Aos, Es, Esh, Osch, &c. (Or. var.); Heat, Light, Fire;—the Sun;—Divinity. Aesar (Ir.), Aosar (Sc.), signify God. Compare such names of solar deities as Asshur, Azar, Eeshoor, &c. (Or. var.); Esir, Asir (Phen.); Æsar (Etrusc.); Esus, Hisus (Celt.). Perhaps the Celtic names Oishin, Ossian, &c., are related to these in origin. There seem to be three ancient Irish examples of the same mythological name, or of one closely allied to it:—(1) The Conyngham manilla or double patera,—a bracelet-formed ornament of pure gold, with a cup at either end, described by General Vallancey and Mr Brash. On one of the cups there is an Ogham inscription, which reads UOSER. The other cup bears an inscription, probably Phenician, which—if the letters are correctly copied—seems to read OSAL, though Vallancey reads OLTA (Vall., vol. v. p. 90, pl. iii.; Brash, p. 319, pl. xli.). (2) An inscription mentioned by Vallancey as being recorded by Mr Tighe, in the *Statistical Report of County Kerry*, to exist on a stone which stands, or stood, on the top of Tory Hill (otherwise called "Sleigh Grian"—"the Hill of the Sun"). "In Roman letters," writes Mr Tighe (the nature of the original letters is not stated), "this would be BELI DIUOSE Beli-Di-Uose, Belus, God of Fire" (Vall., vi. 164). (3) The Kilfountain Stone, Co. Kerry (engraved in Mr Brash's work), on which there is an inscription (resembling mixed Greek) placed below objects not unlike Mithraic symbols and a solar wheel, which seems to read UEZUII, or UOIZUE (Brash, pl. xxx.). Quoting as follows from the *Annals of Tighernain*,—"A.D. 651 . . . Oisir, the son of Oiserge, was mortally wounded,"—Mr Brash remarks, that "it was usual

in ancient times for tribes and individuals to take the names of their favourite deities" (Brash, p. 321).

It has been noticed by former writers that the Ogham version of the name under consideration bears some likeness to Iosa, the Gaelic form of the sacred name of Jesus,—whether intentionally so or otherwise need not now be discussed.

Analysis of Second Part of Main Inscription.

M. Ins. (l. 4). UR-CHAN ; Lord of Light. The title of a solar god, Kronos, Baal, Zeus, &c. Also a title of the priests of these deities. Derived from the root-words Ur and Chan. Ur, Aur, Our, &c. (Or. var.), Fire, Light, Heat ;—the Sun ;—Nobility, Greatness. Ur (Ir.), Fire ;—Noble ; as Ur-sliocht, a noble race (O'B.). Gwawr (Wel.), a Breaking-out of light, the Dawn (Pughe, *Welsh Dict.*).

Chan, Cahen, Cohen, Cun, &c. (Or. var.), Lord ;—Priest. Ceann (Ir.), Head :—"The Kan of the . . . Asiatic nations is of the same radical origin as Ceann" (O'B.) ; (*e.g.*) "Cean-fine, head of a tribe" (O'B.) ; *cf.* Khan (Tartar), as in Kublai Khan.

Osiris was styled Can-Osiris ; *cf.* Canethoth (Can-Athoth), Chnephthis (probably Can-Ophis), &c. At Halicarnassus Zeus was styled Kamuros = Can-orus, Lord of Light ; Kronos, a name of the Father of the gods, is probably a transposition of the same word (Bryant). The Urchensi or Urchani were a sect or tribe of literati and astrologers in Chakia (Strabo, &c.) ; the similar word Hyrcanus became a princely and priestly appellation among the Maccabean Jews. In Herefordshire there dwelt a Celtic tribe named the Urchens, their capital city called by the Romans Uriconium ; the district has since been known as Urchenfield and Archenfield.

The figure here assumed to represent the letters CHa, is a widely-diffused solar symbol, eminently sacred in Egypt and the East. It appears on very early Greek and Etruscan coins, vases, &c. The symbol is sometimes called Fylfot. In connection with India it bears the name of Swastika. This is "the representation of the wooden instrument of

the same name [*Swastika*] employed with the *Pramanthā* [or '*Prāmāthyus* = the Greek Prometheus'], or fire-stick, to produce the sacred fire, *Agni*." (Joly, *Man before Metals*, 1883, pp. 189, 339.) It occurs on the earliest Hindu Buddhist coins, and is very frequent in the Indo-Bactrian series. On some Indo-Scythian coins there is a *four-armed* solar male figure, resembling this symbol in the arrangement of the arms, with the inscription, "Mithro," or frequently "Okro"—both Sun titles. In the same series occur male or female lunar figures, inscribed respectively "Nano" or "Nana,"—the latter, it may be noted, is a name of the Irish chief-goddess (Prinsep, vol. i. 225, &c.). The Swastika is common on Scandinavian coins, bracteates, &c. With the three-armed Triquetra, it appears on the Snoldelev Stone in Denmark, above the Runic inscription read by Mr Stephens:—"Kunuaelt's Stone, Son of Ruhalt, Priest on the Sal-hows." These are, continues the same writer, "two ancient Asia-sprung symbols the Triquetra, a variation of the three-armed Cross the hieroglyph of the Sun-god the mark of Thor. A little higher is the equally famous symbol of the *flanged Thwarts* or *four-angled Cross*, the token of the Highest God. Here we cannot but take it as the mark of Woden." (Stephens, vol. i. pp. 345-347.)

There are several examples of it on Roman altars in England, and subsequently it is found on ecclesiastical sculptures, where it is styled Tetragrammaton—a Cabalistic name of Jehovah, or the Supreme God. The Welsh bard Taliesin uses the term in that sense when he says, "I have been in the city . . . of the Lord Tetragrammaton" (Herbert, p. 124). In Scotland and Ireland, besides the present example, it occurs in duplicate on the Ogham Stone at Aglish, Co. Kerry, associated with a spear-like symbol,—perhaps the spear or divining-rod of Ishtar or Nana (Brash, p. 189, pl. xxiv.); probably also on the Stone found at Craignarget, Gillespie, Wigtownshire, and now in the Museum, where it appears conspicuously beneath a large cross, in company with other symbols; it likewise appears among the rude rock-carvings of the Fifeshire caves (*Sc. St.*, vol ii.).

M. Ins. (l. 4) EL-181. The Supreme Deity, the Father-Mother of

Nature; otherwise, Osiris-Isis, Huas-Ceridwen, &c.; or Mithras, as the Androgyne Parent of the Universe.

El and Is are the root-words of this compound title. El, Il, Al, &c. (Or. var.), signifies the Supreme deity;—the Sun. The syllable had well-known sacred relations in Hebrew. In the East, El or Il was the same as Kronos, the Father of the gods; the Male Principle, the Sun; also represented by the Phenician sun-god El, Elion, Bel, or Bolathen. Hu or Huas (Wel.—identical with Mithras, Dionnosos, or Osiris, see before, under Uose) was also styled Beli or Belenus, and Ilr or Aeddom (Adonis). In all these cases there is a solar meaning; cf. Helios (Gr.), Heli (Hind.), Heaul, Heilyn (Wel.); Sun, Sun-god.

The other root-word, Is, Ish, As, Es, &c. (Or. var.), denotes Light, Fire;—the Sun;—Spirit, Being; see also (under Uose) Aca, Oach, &c. Isi is the same as Isis or Uasi (Egypt), Isi (Hind.), Esaye (Wel.); Ida, Ila, Misa (Gr., Or.), &c.,—The Goddess of Nature, the Feminine Principle, the Moon, the Earth. She is the “goddess of a thousand names;” she is Demeter, Ceres (Ceridwen or Ked—Wel.; Ceara—Ir.); Devi and Sita (Hind.), Sidee (Wel.); Hertha or Frea (Goth.); as Anaitis, or Di-ana, or Ana Perenna, or Nana, she is the same as Nana or Ainé, the Irish Tuath-de-danaan chief-goddess; she is Great Mother Nature, Dea Multimamma, the Cow-goddess (cf. Derenilla—Ir.); likewise the Queen of the Under World, Hecate, Persephone, &c. All goddesses resolve themselves into Isis, The Female, the Earth, the Moon; as do all gods into Il, Osiris, &c., The Male, the Sun. “Uasi or Isis is merely the feminine reflection of Uasar; the two deities are always inseparable.” (Brown, *Great Dionysiac Myth*, p. 184.)

El-Is is a compound equivalent to El-Isis, denoting the great dual deity, in whom were combined the male and female principles. The idea is common to all mythologies. Mithras, viewed as the great Father blended with the great Mother, was hermaphroditic. He was both Sun and Moon; a familiar conjunction,—as Helios-Helia, Nano-Nana, and, among the Britons, El-Chiun or Oli-Chenius, equivalent to Belenus. The worship of Mithras, originally pure in its connection with the doctrines

of the Zend-Avesta, was corrupted by its conjunction with that of Anaitis, the Syrian Venus.

Under the early Roman emperors, writes Mr Elton, the world was pervaded by the "Pantheistic religions which spread from Egypt and the East, and overlaid the old rites with the worship of a World-goddess with a thousand names, and of the Sun-god Osiris or of Mithras 'Isi and Serapis' (writes Renan) 'had altars even in the ends of the world'" (Elton, p. 350).

The compound El-Is, according to Bryant, was "an ancient title of Mithras and Osiris in the East." No doubt it was so, but in the present instance I believe its direct meaning to be different. It here belongs to the later forms of Mithraism, where El does not represent Mithras, but in a Judaizing spirit designates the true Supreme God; of whom, for example, one of the Welsh bards writes thus:—

"Most-high is his name in Hebrew,
Eli, Eloi, and Adonai, and O, and Alpha" (Herbert, p. 127).

This is that same "Lord Tetragrammaton" of whom we have already heard in connection with the Swastika symbol; thus these later Mithraic applied to Jehovah, not only the ancient titles of the Supreme God, but some of those that had belonged to Mithras or Hu, to whom they then assigned the functions of Christ—"Hu Gadarn, the Bardic Christ, the Mithras of the Britons" (Herbert, p. 130).

M. Ins. (l. 5) MAZDĀ. Mazdao, Ahura-Mazdao, Oromazdes, Ormuzd; sometimes Mithras. The name given by the ancient Persians to the Supreme Being, the True Creator, the Holiest, &c., nearly identical with the Elohim of the Hebrews, as recognised by both nations. The exact signification is uncertain; it has been variously rendered—Great Giver of Life, the Living Wise, the Living Creator of all. Both elements of the name were commonly used to express the idea of a god (Rawlinson, ii. 323-326). With the British Mithraics, "Jehovah was Oromazdes, and their Moses and Christ were forms of Mithras" (Herbert, p. 63).

Should the third letter of this line be H rather than Z, MAHDĀ would

signify Good God, or Great God, resolving itself into Mah-Di; Mah denoting Good in all Celtic languages (*e.g.*, Math, pronounced Mha—Sc.; Maith, Ir.; Mat, Wel.), also probably throughout all ancient mythology. The same root has likewise meanings connected with greatness, power, sovereignty, *e.g.*, Mata (Ir.), Great; Matern (Corn.), a King; see also Oriental analogies.

At one time it occurred to me that MAQQI, Son of, might be the true reading; but the third and fourth letters can hardly be identical, and it would be difficult to take either of them as representing Q.

The syllable Di (De, Dio, Dis, &c.) is everywhere associated with deity, as in Diu, Deva (Sans.), the Sky, God, and in such words as Theos, Deus, &c. Di or Dis was both Jupiter (Zeus, Zdeus) and Pluto. In Irish, Dia, Die, signifies God; *cf.*, "Diarmuid, Dia-armaid, *Deus armorum*" (O'B.).

M. Ins. (L 6) LOGOY-PAT(E)R. Father of the Logos; Father of the Word; Father of the Spiritual and Intellectual Flame.

This line is in Greek, and the words have their usual philosophical as well as, in this case, semi-Christian meaning. The Logos was anciently viewed as the Soul of the World. "*Cette théorie de la raison universelle, du Logos qui pénètre toutes les substances, source de la vie et de l'intelligence de tous les êtres, et qui régit le grand tout, a été admise par toute l'antiquité, et faisoit partie de la théologie secrète des mystères.*" (Rolle, *Recherches sur le Culte de Bacchus*, 1824, vol. ii. p. 26.) Taken as a Celtic word, Log or Logh, akin to the Greek Logos, is connected with ideas of fire, and denotes the spiritual and intellectual flame, the Essence of God. The Druids appear to have worshipped both the Sun and its similitude, their sacred temple-fires (kindled by "forced fire," *i.e.*, forced from wood by friction—*v.* on *Swastika*), as special habitations of the Logh. The Cornish "Loghan stones" are said to bear that name, because the priests professed to draw into them the Logh, or divine presence, when making oracular inquiries (Vall., vol. iv. p. 14).

The word Pater (Gr. and Lat.), Piter (Sans.), Father, takes rather different forms in the Celtic languages. Putra (Sans.), a Son, appears in

Pautr (Arm.), a Boy (Borlase, p. 449); but that sense can hardly be applicable here.

The analysis being now concluded, I proceed to submit a summary of the inscriptions, together with their interpretation as a whole.

Summary of the Inscriptions.

Ogham Inscription : (A)IDDAI QNEAN¹ FORRERI IBH UA IOSIE.

Main Inscription (a) : AITTAI FURYR-INGIN SYOL O UOSE.

Literal Translation : Ada, Daughter of Forar, of the race of the Sons of Huas.

Main Inscription (b) : URCHAN ELISI MAZDI LOGOY-PATER.

Literal Translation : Lord of Light, El and Isis, Oromazdes, Father of the Word.

Paraphrase of the whole Inscription : Here lieth Ada, daughter of the priestly Forar, of the sacred serpent-race of the Sons of Huas. O God Supreme ! Thou art the Lord of Light, the holy Lord Tetragrammaton : Thou art El and Isis, Twain in One, Eternal Parent of the Universe : Thou art Oromazdes, all-good, all-great, all-wise : Thou art the Father of the Word—the Mediator, the Spiritual Flame divine.

Conclusion.—The result of my studies of the Newton Inscriptions, as well as the processes that led to it, being now fully submitted, it only remains for me to add a very few words in conclusion of the subject of this paper.

The Ogham inscription we may suppose (with some small stretch of fancy) to have been designed for the reading of the ordinary grades of the priestly classes, while the longer inscription addressed itself solely to those who were initiated in the sacred mysteries. To them it spoke in the religious language of many nations and of many worships, embodying in one sentence the titles of the Semitic Baal or the Indo-European Jupiter or Zeus, of the Egyptian Isis or the half-Asiatic Ceres or Hecate or Luna,

¹ It has been found that the cast of the Newton Stone in the Museum imperfectly represents the Ogham group, Nos. 9, 10=EA, showing only three instead of five scores.

THE NEWTON STONE. SUPPLEMENTARY NOTE.

Since the completion of the paper on the Newton Stone, continued study of the Northern Oghams has led me to modify my reading of the second word in each of the inscriptions. The Oghams naturally indicate QNNN, though, perplexed by such a combination, I adopted EA in place of the central N. I now believe this word to be Cuninin = *Coinne-nean*, and I read the corresponding word in the M. Ins. as Kunining(e)n,—that is, Daughter-in-law, or by-affinity (*cf.* Old Ir. *Coinne-athair*, or Father-in-law,—O'Br.), or Daughter by adoption (*v.* Keating's *Hist. of Ir.*, p. 260).

On this subject I have been favoured with a letter from an able Gaelic antiquary:—"In reference to the words in regard to which you asked my opinion, I have never heard the word *Coinne*, meaning a woman or a wife, used in the Highlands of Aberdeenshire, but I recollect distinctly the frequent use of an expression, which old people were wont to apply as a term of endearment to their grand-daughters and nieces, viz., '*Coinne Nighean mi*'—'My dear little friend,'—never addressed but to a female relation, and never to a sister or daughter, but generally to the next nearest relation either by blood or affinity. The pronunciation of the word would phonetically be something like this: *Coin-nean*, and it was not unfrequently applied to a daughter-in-law Twenty years ago a great Gaelic scholar told me that after a short stay on Dee-side he had found more antiquated Gaelic words there than he had found anywhere else in the Highlands." Regarding this, it should be noted that Newton belongs to the neighbouring valley of the Don, within a few miles of the district referred to.

It is easy to reconcile the changed letters with the corresponding characters in the inscriptions. As regards the Ogham Ins., a difficulty is removed, not created. As regards the Main Ins., the initial letter of the second word appears in the Kilmalkedar Alph. both as K and F, and the minuscule 3rd and 5th letters may as probably be *n* as *r*. This disposes

of the only changes required. The new reading better harmonises the inscriptions, vindicates the Oghams, explains the position of *Ingen*, and establishes the sex of the commemorated person. On the other hand, it seems to leave the Ogham Forrenn (or Forrerr—assumed to be a patronymic) unrepresented in the Main Ins.

Perhaps a general statement of race-kinship satisfied the authors of the latter version, but it is possible that Urch(a)n (beginning 4th line) may be Forrenn in another shape. The rest might then read genealogically with it:—Urchn Elifi, (of) Urchan Ailif; Maqqi, Son of; Logoy Patr, (?) But (1) Urchn barely matches Forrenn; (2) Elisi is better than Elifi; (3) There is no authority for reading QQ in the 5th line, and the two letters are not alike; (4) The final word is intrinsically difficult; besides, the central capital P should mark an initial. It may denote Lugu-Patar, *cf.* Lugucurit, Lugnaedon, &c.;—Lugha, an oath; Logha, a remission; Logh = Logos, word;—Patar = Patrick, whence the capital P. But, all said, it is hard to ignore the significance of seven connected mythological terms,—found by no forced expedients, but in the simplest manner.

Therefore, while offering an alternative, I entirely hold by my former reading, except as regards the chief subject of this paper. The reading in full would now stand as follows:—*Ogham*. Aiddai, Q(u)n(i)n(i)n Forrenn Ibh Ua Iosii. *Main Ins.* Aittai, Kunyning(e)n Siol O Uosé. Urch(a)n, El-isi, Mazdi, Logoy-Pat(e)r.

Translation.—If not a proper name, *Forrenn* offers some difficulty. It may be an epithet representing one of several existent Gaelic words, or possibly it is an obsolete compound, denoting perhaps rank or office. My antiquarian friend suggests for this, *Fiorrin* (for *Fiorrinneach*), loyal, true-hearted, and sanctions *Adopted Daughter* for *Coinne-neann*. Leaving these questions undecided, I provisionally translate as follows:—*Été*, Adopted Daughter (of Foran) of the race of the Sons of Huas. Lord of Light! El and Isi! Oromasdes! Father of the Word!

consorted with Osiris, or Kronos, or Helios, with Dionusos, Mithras, or Huas ; of the Persian Oromazdes, the great deity of the Magians, the Principle of all good ; and, finally, of the Almighty Father of the Logos—Græco-Hebraic,—pagan-philosophical, or perhaps semi-Christian,—one knows not what term to apply, for of some of the rites and deeds and doctrines of those early days, amidst the darkneses of time and place, it were too difficult a task to decide at what point Paganism ended, or at what point Christianity precisely began. Nay, it is not impossible—despite its Pagan aspect—that the Newton inscription may have been written by one who honestly professed and called himself a Christian, one to whose ill-instructed mind the cruciform Swastika duly represented the Holy Rood, and to whom the dubious appellations of the ancient deities seemed right and worthy titles for the Almighty God.

II.

HOLY ISLAND, AND THE RUNIC INSCRIPTIONS OF ST MOLIO'S CAVE,
COUNTY OF BUTE. BY DANIEL WILSON, LL D., F.R.S.E., Hon.
MEM. S.A. Scot.

The discovery of the remarkable series of Runic inscriptions brought to light by the exploration of the famous Maeshowe tumulus of Orkney, in 1861, gave an altogether novel interest to this class of memorials of the Scottish Northmen ; and they have, accordingly, received an amount of attention corresponding in some degree to their value. But though the Runic inscriptions of St Molio's Cave, Holy Island, cannot compare with them either in number or diversity, they merit greater attention than they have yet received. One reason, apart from all others, confers a special interest on them, if the assumption is correct which recognised in them memorials of some of the participators in an event of unusual importance in early Scottish history.

The battle of Largs, the last great conflict between the kings of Scotland and Norway, could not fail to command an unusual amount of interest ; and as the traditions of the Northmen faded into half-mythical

story, it became associated in popular tale and legend with the fierce ravages of older pagan times. Nor was the Christian Haco, or King Hakon Hakonsön, an inapt type of that hardy race of Scandinavian marauders, who, after ravaging and spoiling Iona and other earliest seats of Celtic Christianity, became in their turn church-builders, and at length dedicated the noble cathedral of Kirkwall to their own St Magnus.

Jarl Rognvald vowed that, on his gaining the mastery of the Orkneys, he would build a church in honour of the martyred Jarl; and this votive edifice, begun in 1137, continued to progress slowly under the hands of its builders for fully a century thereafter, as is apparent in the gradual changes of its architectural details; so that it was still fresh from the hands of its skilled Northern workmen when King Haco's body was deposited there before the close of A.D. 1263. The old king, as he lay a-dying, listened for a time to the marvellous legends culled for his behoof from the *Lives of the Saints*; but their ascetic virtues were little suited to his taste; and so he bade his attendants bring the *Chronicles of the Norwegian Kings*, and read to him the more congenial stories of Halfdan the Black, and other ancestral heroes of pagan times.

The shattering of the Norwegian fleet off the Ayrshire coast by the propitious gales of October 1263,—or, as the Northmen believed, by a tempest raised by witchcraft;—the stranding of King Haco's galleys at Largs; the defeat and slaughter of their crews, and the disastrous retreat of the remnant of the fleet along the wild shores of Cantyre and the Hebrides, furnish a series of incidents in Scottish story not without a parallel to England's later experience with the Spanish Armada. In neither case does the national government appear to have made adequate preparations. But the sturdy coastmen of Argyleshire, like the men of Devon in 1588, mustered under their own local chiefs, and the elements did the rest.

The mighty naval force organised by King Haco is stated in the Saga to have exceeded 120 sail; while Professor Munch, in his notes to the *Chronica Regum Maniæ*, expresses his belief that Fordun's estimate of 160 ships and a force of 20,000 men, "seems to be, on the whole, not far

from the truth." This splendid armament must have presented all the aspects of an invincible armada as it swept round the Mù of Cantyre, and cast anchor in the fine natural harbour of Lamlash Bay, on the south side of the island of Arran. The small island of Melansey, Melasey, or Holy Island as it is called, protects the bay from the violence of the neighbouring seas; and during the prevalence of a western gale it may still be seen crowded with the shipping of the Clyde, riding at anchor in safety there till the storm is past. Directly opposite is the Ayrshire coast, with the bay of Largs, the scene of Haco's disasters and of the defeat of his forces on land. In the Norwegian account of the expedition, after the narrative of the fatal storm and the battle that followed, it is stated that the king sailed past Cumbray to Melansey, where he lay some nights. This Melansey, or Melan's Isle, is the same Holy Island which protects the entrance to Lamlash Bay, and derives its name from St Molio, as this Celtic saint is now most generally called. The cave, chair, and pool, or sacred well, of this disciple of St Columba still constitute objects of veneration, if not of superstitious faith, among the natives of the district, while they furnish attractions of legitimate interest to the tourist.

The island and its sacred associations are thus referred to by Professor Cosmo Innes in his *Origines Parochiales Scotiæ*:—"The Holy Island, variously named Helantinlaysche, Almeslach, Molas, Molassa, and Lamlash, and supposed to be the Melansey, or Melasey to which Haco, King of Norway, sailed after his defeat at Largs, is famed for a cave bearing a Runic inscription, and traditionally said to have been the residence of a saint named Molingus, Maeljos, or Molio. This cave, elevated about 25 feet above the present level of the sea, its inscription, a shelf of rock within it called the saint's bed, a large flat stone near it called his table, and his well, celebrated for its healing virtues, are still shown; while the Baul Muluy (the stone globe of St Molingus), a smooth green stone about the size of a goose's egg, which was believed to have the virtue of curing diseases, and of procuring victory for the Macdonalds (whose chaplain the saint is said to have been), has now disappeared."¹

¹ *Origines Parochiales Scotiæ*, ii. 245.

Here, then, within the sheltered harbour of Lamlash Bay, the formidable armada of King Haco mustered in all its pride of power; and thither the shattered remnant retreated, before setting out on their perilous winter voyage to the Orkneys. The pool of the old Celtic saint would, doubtless, be visited on both occasions by watering-parties of the Norwegians. On one or other of those visits some of them climbed to the neighbouring cave, and found time to grave the memorials of their presence in their native runes on the smooth surface of the rock. Professor Cosmo Innes refers to its one inscription only, and in this he is followed by other writers, including more than one recent contributor to the Society's *Proceedings*. Nevertheless, it is now nearly twenty years since, in the second edition of my *Prehistoric Annals of Scotland*, an account was given of five Runic inscriptions copied by me, on two successive visits, from the walls of the cave.¹ Though, with the one exception, those inscriptions seem to have escaped the notice of Scottish antiquaries interested in this department of palæography, the cave has unhappily attracted other visitors; as I learned on my visit to Scotland during the past summer that the finely-cut "Nicholas" inscription has been rudely defaced.

Holy Island corresponds in geological structure to the southern district of Arran, exposing along the shore the common red sandstone strata overlaid by a great mass of claystone and claystone porphyry, which rises in bold picturesque cliffs, presenting in certain aspects a close resemblance to the supposed leonine outlines of Arthur Seat. To modern eyes the outline of the couchant lion overlooking the ancient abbey and palace of the Scottish kings, I may add, is so obvious that it seems as truly a royal memorial as when, from the Bore-Stone on the Boroughmoor, on the national standard "the ruddy lion ramped in gold"—

"Lusty of shape, light of deliverance,
Red of his colour as is the ruby glance;
On field of gold he stood full mightily,
With fleur-de-lycis circulit lustily."²

¹ *Prehistoric Annals of Scotland*, 2nd ed., 2 vols. 8vo, Macmillan & Co., 1863.

² Dunbar, *The Thrissil and the Rose*."

But neither Dunbar, nor the Lord Lion Herald, Sir David Lindsay, gives any hint of the recognition of the royal beast thus appropriately guarding the palace of the Stuarts; and even so late as 1750 Maitland describes Arthur Seat as rising into three tops, "The uppermost part of which, at a north-west view, seems to represent the head and back of a camel."⁴ Whether, however, Arthur Seat is, like the cloud of Polonius, "backed like a weasel," "very like a whale," or fashioned in resemblance of "Yonder cloud that's almost in shape of a camel," the likeness between it and the picturesque cliffs of Holy Island which surmount St Molio's cave is very noticeable.

The cave of the venerable Celtic saint is little more than an ocean-worn shelving recess in the sandstone rock, incapable of furnishing a permanent abode for the most ascetic anchorite, unless it were enclosed by some wall of turf or stone. The recess, however, with its projecting shelf, or "bed," is sufficient to afford shelter from rain; and so has protected the inscriptions on the inner face of the rock from the action of the weather during a period of upwards of six centuries; though, unhappily, it presented no impediment to the barbarous violence which has recently defaced an interesting literate memorial of a striking incident in early Scottish history. The sloping roof and side of the recess are covered with rude marks, crosses, monograms, and other carvings of different periods, amongst which, on my last visit, could still be seen the clearly cut Runic inscription, executed with great regularity, in characters of about an inch and a half in height:—

✱ トリコトト : 1*1トト : Rト11.

This now well-known inscription, though produced for the first time in facsimile in my *Prehistoric Annals of Scotland*, in 1851, had been noticed by previous observers. One other group of runes was copied by me at the same time, along with the group of crosses and other pilgrim marks associated with them. But it was not till a later visit in 1863, preparatory to the publication of a new and greatly extended edition of the same

¹ Maitland's *History of Edinburgh*, p. 153.

work, that three additional Runic inscriptions were observed and copied by me. Notwithstanding, however, that they have been so long published, they still remain so little known to Scottish antiquaries, that I venture to submit them to the notice of the Society, in a somewhat more complete form than in the previous publication.

In a communication "On Rune-inscribed Relics of the Norsemen in Shetland," submitted to the Society by Mr Gilbert Goudie, Feb. 10th, 1879, he remarks that, with the exception of certain Shetland fragments found in 1872 and 1877, and the famous Maeshow inscriptions in Orkney, only three rune carvings on stone have, so far as he is aware, been found in all Scotland up to that time. The three thus referred to are enumerated as the well-known Anglo-Saxon inscription on the Ruthwell Cross, Dumfriesshire,—part of a poem "The Dream of the Holy Rood" in the old Anglian runes of Northumbria; the "Niculos" inscription, in Scandinavian runes in St Molio's Cave; and as a third, certain lines on a stone at Knockando, Morayshire, which by reading backwards have been interpreted ᚱᚱᚱᚱᚱ SIKNIK. The characters in this last inscription resemble no other Scottish runes, and must be regarded as of doubtful classification. Dr John Stuart says of this stone¹:—"The inscription is in runes. It has been read by my friend, Professor George Stephens, of Copenhagen, as SIKNIK. This appears to be the name of a man, and it occurs on another Runic monument at Sanda, Södermanland, in Sweden. Professor Stephens, to whom I am indebted for this fact, adds that the inscription at Knockando is in Scandinavian runes of the oldest and simplest class, and may date from the ninth or tenth century."

The runes are assumed to be reversed, as is undoubtedly the case with the ᚱ twice repeated; but if the intermediate rune-stave rendered ᚱ is also reversed, it should be read, ᚱ , A, not ᚱ , N: SIKAIK. The inscription on the mutilated Sanda stone runs thus:—SIKNAIK RAISTI ISTAIN AT SILYDR FADVR SIN. Siknaik raised this stone to, or in memory of, Silyth his father. In reproducing this inscription in his *Scandinavian Runic Monuments*, Professor Stephens adds:—"The rare name *Siknaik*

¹ *Sculptured Stones of Scotland*, vol. ii. p. 61.

also occurs on a Runic block lately discovered in Scotland, in the form *Siknik*.¹

It may, perhaps, be worth while noting here the occurrence of the name *Sygtryh*, with variations approximating to the Knockando form. It occurs in the above form on a gold bracteate dug up, along with several others, at Overhornbek, North Jutland, in 1844. The runes on the bracteate are partially inverted, and so present some correspondence to the inscription on the Morayshire stone. The name, which in its old Norse-Icelandic form of *Sigtrygr*, Professor Stephens renders *The Victory-sure*, occurs on early Northern coins as *Sitrik*; on coins struck by the Irish Northmen as *Sihtrik*; and in Scandinavian Runic inscriptions as *Siktrukr*, as well as other variants. In the roll of Scandinavian kings of Ireland, as noted in the Irish chronicles, and preserved on their coinage, there are two successive kings of Dublin, *Sihtric*, A.D. 893, and A.D. 896; one of them, the celebrated Sigtryg Silkeskjaeg, or Sitrik Silkbeard, the son of King Anlaf, by Gormlaith, daughter of Morogh Mac Finn, King of Leinster. The name Sihtrik repeatedly occurs at later dates, as in A.D. 989, 994, and 1034, on the coins of the Norwegian kings of Dublin; and in 853 and 1020 on those of the kings of Waterford. The first of these is one of the three brothers, Olaf, Sigtryg, and Ivar, who, as the Irish chronicles relate, landed in Ireland, and became kings in Dublin, Waterford, and Limerick. It is not surprising, therefore, that a similar name should occur among the Runic inscriptions of Scotland, where the Northmen established a more enduring settlement. Professor Stephens thinks that the *Sutericus* at the Council of Toledo, A.D. 653, is probably a barbarised Gothic form of the same name. But this is a digression, into which I have been tempted by the enumeration of the supposed only three runic inscriptions found in Scotland; for the Morayshire inscription has equally little relation locally, or in the character of its runes, to the inscriptions of Holy Island.

In the notice of the extremely interesting discovery of a bronze crescent-shaped plate, dug up at Laws, in the parish of Monifieth, Forfar-

¹ *The Old-Northern Runic Monuments of Scandinavia and England*, vol. ii. p. 780.

shire, in 1796, communicated to the Society by Mr J. C. Roger, in April 1880, the author incidentally discusses the reading of the earliest noted inscription of St Molio's Cave, referring to it, at a date so recent, as apparently the only one known to him. The correction which he there proposes to make in its reading, of *thane* for *ahæne* is, I may add, untenable. It assumes for the old Runic alphabet the clumsy device of our modern English orthography in lieu of the simple *p* as the phonetic equivalent of the *th*, common both to the Scandinavian and Anglo-Saxon runes. The word *ahæne*—of the reading of which on the clearly cut inscription in St Molio's Cave there could be no doubt,—was, indeed, a difficulty at first sight, as no such word occurs in the old Norse, nor is any similar formula to be met with in the numerous Runic inscriptions now accessible by means of Professor George Stephens' *Old Northern Runic Monuments of Scandinavia and England*. But I was indebted to my lamented friend the late Professor Munch of Christiania, for the identification of the *ahæne*, i.e., a *Hæne*, or more properly a *Hæni*, at or of Hæn; Nicholas of Hæn who cut these runes. There is still a homestead in Romsdal, Norway, called Heen or Hein, the largest estate in the northern parish of Gryten; and this Professor Munch assumed as, in all probability, the homestead of Nikulos & Hæni, one of King Haco's vikings in that memorable expedition of 1263. During my first visit to St Molio's Cave, in 1850, I made a careful copy and rubbing of this inscription; and also reproduced in facsimile, in the *Prehistoric Annals*, another group of characters, including crosses and nondescript markings irregularly cut, but among which the experienced eye readily discerns certain Runic characters. They are not executed with care and precision like the other inscription; but slightly graven, as with the hasty hand of some passing wayfarer. Nevertheless, the Runic characters are, for the most part, distinctly defined, though in such close juxtaposition to various crosses and other markings that it is not easy to separate the true group of runes from the rest. A half-length initial line at the beginning suggests the short Runic S; and commencing with this, the inscription admits of the reading SÆVIEPIR, a proper name, with a detached *κ* after

it, suggestive of the reading : *Sæviethir Kurthi*, i.e., Sæviethir made me. But the runes are mere graffiti, slightly traced on the surface of the rock, alongside of numerous marks and crosses ; some of them probably of much earlier date ; memorials of pilgrims who visited the Holy Isle to benefit by the virtues of its sacred well and other relics of St Molio.

A renewed and more leisurely exploration of St Molio's cave in 1863 enabled me to recover three additional Runic inscriptions, previously obscured by moss and lichens. On that occasion I had the whole inner wall of the cave carefully washed, so as to remove the obscuring dirt and vegetable growth, without injury to the surface of the rock on which the inscriptions occur. By this means the slightly cut, but most interesting inscription of the series, described below, was brought to light.

The first of those additions to the series of Scottish Runic inscriptions occurs a little higher to the left, on the surface of the rock where Nicholas of Haen has graven his record. It is sharply cut, in the same Runic characters, an inch in length, **ᐱᐩᐱᐱᐱᐱ** : a proper name, apparently in the genitive singular, and so may be read as the record of its carver, either simply as his proper name, or by grammatical implication, **OF AMVÐAR THE RAISTING**.

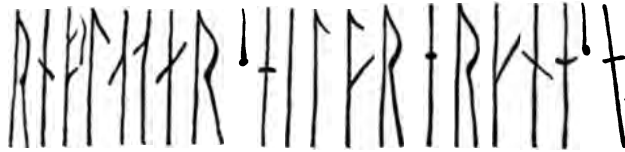
Immediately above the earliest noted inscription, the second of the more recently recovered runic inscription occurs. The characters are larger, measuring an inch and a half in height ; but they are lightly cut, or rather scratched, on the surface of the rock. The formula, however, is one of common occurrence in Runic epigraphy,—

ᐱᐱᐱᐱᐱᐱ : ᐱᐱᐱᐱᐱᐱᐱᐱᐱᐱ

i.e., *Ontur raist runer* : Ontur engraved these runes. The only doubtful letter is the *u* in *Ontur*. A dot in the centre of the second line of the rune, may be intended for *ue*, binderuner, *Ontuer*.

The third, and most interesting of the inscriptions occurs on a sloping face of the rock, in characters of nearly 8 inches in length, but so slightly scratched, and weathered and defaced by time, that they were wholly invisible, until the surface of the rock had been carefully washed, and

freed from vegetable growth. The Runic record thus brought to light from beneath the accumulated moss and dirt of centuries is here produced. In its interpretation I have enjoyed the advantage of the experience and critical acumen of Professor George Stephens of Copenhagen.



This inscription belongs to the class of *graffiti*, like the satirical chalk-writings on modern walls; and, if we are right in assigning the runes of Holy Island to the memorable year 1263, the vein of humour in this inscription may justify its assignment to the earlier mustering of the Norwegian fleet in Lamlash Bay, in all the pride of anticipated victory; and not to the later date when the shattered remnant of King Haco's Armada found shelter there, before encountering their stormy flight to the Orkneys.

The inscription may be rendered—*Unflatær seilgr erkнесе*; or, as Professor Stephens reads it,—dividing the second word, and doubling the *n* in the third, to replace the abbreviation common in rune carvings,—*Unflatær se-ilgr erkнесе*: A tall, or stout fellow is Sea-Elk Seal's nose! Professor Stephen remarks on this inscription,—“*se-ilgr*: the word for *sea* in Runic inscriptions is spelt *sa, se, si, sy, su, sai, sau, siuo, siau*, in the old local variations, so there is no difficulty as to the vowel. The man's name was *Elk*, but he was famous as a sea-rover, or merchant, and so got the name *Sea-Elk*. In old Icelandic we have the name *Eelg-frodi*; in old Norwegian *Jom Elgr* and *Sigurd Elgr*; and in old Swedish *Harald Ælgh*.”

As to the soubriquet *Erkнесе*, or seal's nose, it may be assumed to be a satirical nickname originating in some fancied likeness in Seilgr's profile to that of the phoca. One species of seal was styled by the northmen *erkn, arkn, örkn*, from whence come various old Scandinavian proper

names of the like kind. That of *Orkason* occurs in one of the Maeshow inscriptions. *Orkn-höfdi* is a Scandinavian proper name, referring to the shape of the head; and the same root occurs in the name of the Orkneys. *Thorgeir sel-nasi*, *Sela-Kalfr*, *Sel-thorer*, and the like examples of nicknames, are found in Scandinavian Runic inscriptions.

Professor Stephens has also drawn my attention to the remarkable and unique Irish Runic inscription on the Greenmount sword-plate, which reads—doubling the *p* in *soerpeta*,—*Tomnal sels-hofop a soerp peta*; i.e., Tomnal, or Donnel Seal's-head owns this sword.

Professor Cosmo Innes, in the passage quoted from the *Origines Parochiales Scotiæ*, refers to a large flat stone called the Saint's Table. This, I presume, is what I have described in the *Prehistoric Annals*, as the Saint's Chair, and of which I now enclose a slight sketch taken in 1850. It may be more correctly described as a large block of stone with several recessed seats cut along its circumference, and with a flat top in the centre; so that it furnishes both table and chairs. But the name of "The Chair of St Molio" accords with similar objects elsewhere. It belongs to a class of relics of which various examples still exist among the Scottish memorials of Celtic hagiology; and stands alongside of the equally characteristic bath or well of the venerable saint of the Holy Isle. As the well is close by the sea shore its use as a bath was unnecessary, unless for the purpose of rendering its miraculous virtues available; and it may, therefore, be more correctly designated the Well of St Molio.

Relics of this class are still by no means rare. About half a mile westward from Tantallon Castle, in East Lothian, is the Well of St Baudron, or St Baldred; and a deep fissure in the cliff at Whitberry, near the mouth of the Tyne, is styled the Saint's Bed or Cradle. There is also a rock at the mouth of Aldham Bay traditionally designated "St Baudron's Boat,"—the stone on which he floated to his chosen retreat, the coast opposite the Bass. This is a feat of repeated Celtic hagiology; and is matched by the miraculous remains of St Cuthbert, in his stone coffin, from Old farne. The traces of the old Anglian saint were at

on the consecrated site immediately under the rock of Edinburgh Castle ; and the Bath of St Cuthbert in Strath Tay was long a favourite resort for its miraculous virtues. Both the Bath and Well of St Wallack still remain near the ruined aisle of Wallakirk, parish of Glass, Aberdeenshire. The saint's bath is cut in the rock to a depth of nearly four feet, and supplied with water by a small spring which flows into it. The well was annually resorted to, until a very recent date, on the saint's day, for the cure of diseased eyes ; and, weakly children dipt in the bath, were believed to be restored to vigour. The Chair of St Inan is fashioned in the face of a cliff about three hundred feet high, at the west end of the Cuffhill, in the Barony of Beith, Ayrshire, where it commands an extensive view. The Saint's Well is a pool at the foot of the cliff, fed by a spring which flows abundantly from two openings in the rock. The Holy Pool of St Fillan, in the Strath of Perthshire which still bears his name, is familiarly associated with the curative virtues of the Saint's Bell, now happily restored to Scotland ; and, with his still more prized Quigrich, treasured among the national relics in the Society's collection. The stone Chair of St Fillan existed until a comparatively recent date at the Mill of Killin ; and that of St Murnan still remains at Aberchirder. St Kentigern had of old his bath, bed, and chair near the Molendinar Burn, under the shadow of the beautiful cathedral of St Mungo, as he is more familiarly named. Another singular Celtic relic of the same class probably points to associations with older Pagan rites. A stone chair occupying a point near Achtereachan, Glencoe, where a bend in the glen commands a fine view in both directions, is associated with one of the heroines of Ossianic song and legend. An inaccessible cave in the lofty rock is styled Ossian's Hall, and the stone seat bears the name of *Cathair Malvina*, or the chair of Malvina.

III.

THE BATTLE OF GLENSHIEL, 10TH JUNE 1719. NOTE UPON AN UNPUBLISHED DOCUMENT IN THE POSSESSION OF HIS GRACE THE DUKE OF MARLBOROUGH. BY A. H. MILLAR, F.S.A. Scot.

Considerable mystery has hitherto surrounded that incident in Scottish history known as the Battle of Glenshiel. This has been caused principally through the limited materials placed at the disposal of the historian; and probably also from the desire of the Hanoverian Government to destroy the last remnants of the rebellion of 1715, by suppressing all records of this episode. It was the final attempt of the Jacobites to retrieve the disgrace of their retreat after Sheriffmuir; and as little glory could accrue to the victors, the annalists of the time have passed the conflict lightly over. Hence some historians entirely omit all mention of this affair, whilst the most recent of them—the late Dr J. Hill Burton,—disposes of it very briefly, having, apparently, no secure *data* to guide him in the matter.

Whilst collecting the materials for my “History of Rob Roy,” I was fortunate enough to discover that amongst the MSS. of His Grace the Duke of Marlborough there was a “Plan of the Battle,” surveyed and drawn by Lieutenant John Bastide,¹ which gave not only the disposition of the Jacobite and Hanoverian forces, but also detailed with great fullness the different motions of the troops upon both sides. The application which I made for an inspection of this plan was promptly responded to; and His Grace courteously forwarded a certified copy of the original drawing, which forms the basis of the present paper. To make my remarks upon this important historical document thoroughly intelligible, it may be judicious to rehearse briefly the history of the time, that the state of parties may be thoroughly understood.

There were few amongst the warrior-politicians of the period who figured more prominently at the courts of James II., of William III., and

¹ Eighth Report of Hist. Manuscripts Commission, p. 22.

of Queen Anne, than the warlike Duke of Ormonde. His grandfather, the first Duke of Ormonde, whom he succeeded, had taken a prominent position in Irish affairs; and when he died, his successor had already been received into favour at the court of James II. His blood-relationship to the House of Nassau prompted him to adhere to the Prince of Orange at the time of the Revolution of 1688, and his vast influence in Ireland made him a powerful auxiliary in these unsettled times. He was thus raised to successive dignities during the reigns of William and of Anne, until his gallant services against the French and Spaniards induced the latter sovereign to make him commander-in-chief of the forces in Great Britain. This honourable post he held until the Treaty of Utrecht was concluded, when he was made Warden of the Cinque Ports, and Constable of Dover Castle.

Two years afterwards Queen Anne died, and the Elector of Hanover ascended the throne of Great Britain as George I. One of his first acts was to dismiss the leading politicians of the previous reign, who were likely to differ from him; and amongst these were numbered Bolingbroke and the Duke of Ormonde. The former at once joined the Jacobite court, but the latter retired to Avignon to bide his time. George I. had indiscreetly put himself into the hands of the Whigs, and under their advice the Duke of Ormonde was impeached of high treason, his estates declared forfeit, and a reward of £10,000 offered for his apprehension. The new king thus wilfully turned into an enemy one whom he might easily have secured as a friend.

It is not wonderful, in these circumstances, that Ormonde was willing to lend his aid when the Earl of Mar's rebellion broke out in Scotland in 1715. At that time he relied upon assistance from the French court, and he was grievously disappointed in his expectations. He landed upon the shores of Scotland, but his promised support was not forthcoming, and he was forced to flee to the Continent for protection. His next offer of aid came from a different quarter, and took a more practical shape.

Mar's rebellion had proved a fiasco. After the dubious conflict of Sheriffmuir he had withdrawn his troops northwards, devastating the

country through which he passed, as though he had expected a hostile pursuit; and when he reached Montrose the craven earl basely abandoned the chiefs who had perilled all in supporting him, and fled with his timorous king, James VIII., to more friendly shores. The Earl Marischall had thus the ungracious task committed to him of leading the discomfited Highlanders to Aberdeen, and there dismissing them to their several homes, the disappointed supporters of a forlorn cause. The earl himself found refuge and protection within the realm of France, and waited the dawning of a more propitious day.

France had made a feint of supporting the Jacobites solely upon *political* grounds, but Spain now proffered her aid as a religious ally, having the welfare of the Holy Catholic Church in view. Philip of Anjou had ascended the throne of Spain, and one of his prime advisers, the astute Cardinal Alberoni, saw that the first project to make him popular with his new subjects would be a Holy War for the re-establishment of Romanism in Scotland. Knowing the disgrace that had been put upon the Duke of Ormonde by the Hanoverians, the cardinal expected him to lead this projected expedition, and found him a willing pupil. The duke put himself in communication with the Earl Marischall and others of the Jacobites, and a descent upon Scotland was speedily arranged. Ormonde, who had won his laurels by defeating the Spaniards in Vigo Bay, was now to lead a new Spanish Armada against the country which gave him birth.

The Jacobite leaders who had taken refuge in France soon rallied at the call of the Earl Marischall. The Earl of Seaforth, the Marquess of Tullibardine, Atholl's valiant son, and Campbell of Glendaruel, the representative of Breadalbane, flocked to his assistance, and everything seemed to favour this new invasion of Great Britain. It was arranged that Seaforth and his comrades should make a diversion in the extreme north-west of the British Isles, whilst Ormonde and his foreign army landed on the southern coast; thus making a curious involuntary parody of Monmouth's plan of rebellion, which Ormonde had ruthlessly opposed in person.

The flame of Jacobite revolt had been maintained in Scotland principally through the agency of the marauding Highland clans ; and several of the Lowland Whig strongholds were captured by them long after the Hanoverian Government had concluded that the rebellion had been crushed. The chief leader in these Jacobite raids was Robert Macgregor Campbell,—better known as Rob Roy,—a man whose fearless courage had led him into many a scrape, from which his wit and ingenuity delivered him. The projectors of this new invasion believed that no plan which they could entertain would be available without his aid ; and he was at once taken into their confidence. The Marquess of Tullibardine and Campbell of Glendaruel put themselves in communication with him, and it was arranged that he should assemble the Highland malcontents at a given point upon the west coast, where they might co-operate with the foreign auxiliaries from Spain.

The campaign proposed was carefully planned, and gave every promise of success. The Earls of Marischall and Seaforth were to land upon the north-west coast and join the rebels under Rob Roy, and their united forces were to advance upon Inverness, then the most important Hanoverian station in the north, and expel the Dutch and English intruders. Whilst the news of this northern rebellion was distracting the court at London, the Duke of Ormonde was to land his Spanish Armada upon the southern shores of England, and march at once upon the capital, trusting to the influence of Jacobite feeling in Oxford and Northumberland to effect a victorious entry. This plan, as has been remarked, was identical with that which Monmouth and Argyll had vainly attempted to carry out in 1689 ; but the unsettled state of the country made its success more probable at this time. As the island of Lewis had long been in the possession of the Mackenzies, whose chief was the Earl of Seaforth, it was arranged that the landing of the Spanish contingent under the Earl Marischall should be made there, until the land-forces had mustered to their aid upon the mainland of Scotland. Alberoni furnished six companies of Spanish infantry-soldiers, two thousand stand of arms, and five thousand pistols, together with the transports necessary for their convey-

ance to Scotland ; and with these Earl Marischall and his comrades set forth, shaping their course for Stornoway. The new Spanish Armada under the Duke of Ormonde was to set sail shortly after them, and strike terror into the hearts of the Southern Whigs, whilst the north of Scotland was in an uproar.

Despite the perils of his passage, Marischall arrived safely at Stornoway, and anchored within the bay, beneath the protection of the "ancestral towers" of the Mackenzies of Seaforth. Shortly afterwards he was joined by his younger brother, in company with the Marquess of Tullibardine and others of the Jacobites who had sought refuge in France. The meeting was not an auspicious one. Marischall believed that the whole conducting of this expedition had been committed to him, but Tullibardine produced a commission, under the hand of James VIII., constituting him commander of *any* expedition made in Scotland in the Jacobite interest. There is now no doubt that this commission had been granted in the anticipation that Charles XII. of Sweden would invade Scotland, but the death of that monarch should have cancelled this appointment. Tullibardine, however, was strenuous in his demand that the control of the expedition should be committed to him, and Marischall was forced to submit. He only claimed that the Spanish ships, which Alberoni had placed under his command, should be returned to Spain after their troops were landed.

This dispute at the very beginning of the campaign had an evil effect upon its subsequent history. Time slipped away whilst the chiefs were debating upon a trivial question of precedence, and when at length the Spaniards reached the shores of Kintail, their leaders received intelligence that Ormonde's Armada had met with evil weather off Cape Finisterre, and had been forced to return to port. What was to be done in these circumstances? Marischall only felt himself now responsible for the Spanish *ships*, as Tullibardine had assumed control of the *men*, and whenever a landing had been effected he sent back the transports which had brought him aid with all speed to Spain. The Spanish soldiers were thus in a manner entrapped in a foreign country, where they would be forced

to fight or surrender, cut off, as they were, from all communication with their native land.

The place chosen for their disembarkation was the Castle of Eilean Donan, which stood upon the peninsula betwixt Lochs Duich and Ling, and commanded the entrance to Loch Alsh from Kyleakin. The castle had been founded by Alexander III., and was the first seat of the Mackenzies who descended from Colin Fitzgerald, its constable in 1263.¹ Here the Spaniards effected a landing, established a magazine behind the manse, and awaited the Highland troops whom they expected.

Lord George Murray, the younger brother of Tullibardine, had joined the forces he could muster from Perthshire with those which Rob Roy had collected in Stirlingshire and the north part of Argyllshire, and these marched to Eilean Donan to meet the foreigners. The castle had suffered at the hands of General Cadogan after the battle of Sheriffmuir, but a few trifling repairs made it suitable as a temporary fort. It was the intention of the insurgents to push rapidly across the intervening country and seize upon Inverness, as they had assurances of support from the Macraes and Macleennans of Kintail, and counted upon aid from the Campbells, whose chief, the Duke of Argyll, had been disgraced by George I. Their move was unexpectedly checkmated.

The command of the garrison of Inverness had been committed to General Wightman, who had distinguished himself at Sheriffmuir, and he soon received intelligence of this expedition from the Frasers, Munroes, and other clans friendly to the Hanoverian dynasty. He determined to proceed at once against the rebels, without waiting for special instructions from the Duke of Marlborough, then commander-in-chief of the British forces. Moving his troops hastily by the Strath-Affarick road, he took up the clans of Fraser and Munro on his way, and pushed on towards Eilean Donan, the ancient gathering-place of the Mackenzies, where he expected to meet the foe.

Meanwhile intelligence had reached the Government of the projected

¹ *Old Statistical Account*, vol. vi. p. 253, note.

expedition, and they caused the channel to be closely guarded, and ordered a search to be made for the insurgents amongst the numerous islets of the west coast. Fortune led the Hanoverian vessels into Loch Alsh, probably because the commanders shrewdly suspected that Seaforth would seek to land upon his own territory; and the rebels were attacked at their headquarters in Eilean Donan ere they had begun their march upon Inverness. The conflict was brief, for the castle had not been built to resist a siege with artillery, and the Highlanders and Spaniards were compelled to leave its shelter, and take the dangerous road which led towards Inverness by the Pass of Glenshiel. General Wightman had lost no time in advancing towards the coast of Kintail, and the rebels were thus placed in a dilemma, with a naval force threatening them upon one hand, the victors of Sheriffmuir confronting them on the other. There was considerable skill shown in the selection of the Pass of Glenshiel as the scene of conflict betwixt unequal forces; and had the Spaniards been native patriots instead of mercenaries, greater consequences would have ensued. It is at this point that the "Plan of the Battle" becomes of value.

The numbers engaged upon both sides in this affair have been variously stated; and it is difficult to arrive at an accurate estimate. Probably the Government troops amounted to 1600 men, whilst the rebels only mustered 1500. The latter force consisted of the Mackenzies, under their chief, the Earl of Seaforth, and his tenants of Kintail, the Macraes and Macleonnans; the Macgregors under Rob Roy; a small band of Murrays from Atholl, under Lord George Murray; and foreign auxiliaries, "300 (some say 400) Spaniards,"¹ commanded by Don Alonzo de Santarem. From Lieutenant Bastide's plan we find that Major-General Wightman's forces were composed of 146 grenadiers, 4 companies of dragoons, Colonel Montagu's regiment, Colonel Clayton's regiment, a detached battalion of Colonel Harrison's, the Clan Munro, the Sutherlands, including the Frasers, and Hussel's Dutch auxiliaries.

¹ *Old Statistical Account*, vol. vii. p. 132

After a hasty march from Inverness, the general arrived at the Pass of Glenshiel on the 10th of June 1719.¹

Wightman found the rebels so strongly posted, that though their numbers were inferior to his own he hesitated to attack. The river Shiel runs through a deep glen formed by the highlands of Kintail on the one side, and the lofty peak of Scur-Curan on the other, regarding which Bastide notes that "the mount called Skururan is the highest in Scotland, except Ben Nevis." This statement is not absolutely correct, but the Ordnance Survey map gives its height as 3113 feet. The road from Inverness and Fort-William passes by the north side of the river through the glen, and the rocks rise so precipitously that a small force might hold the pass, if skilfully commanded, against excessive odds. At the

REFERENCES TO THE PLAN.

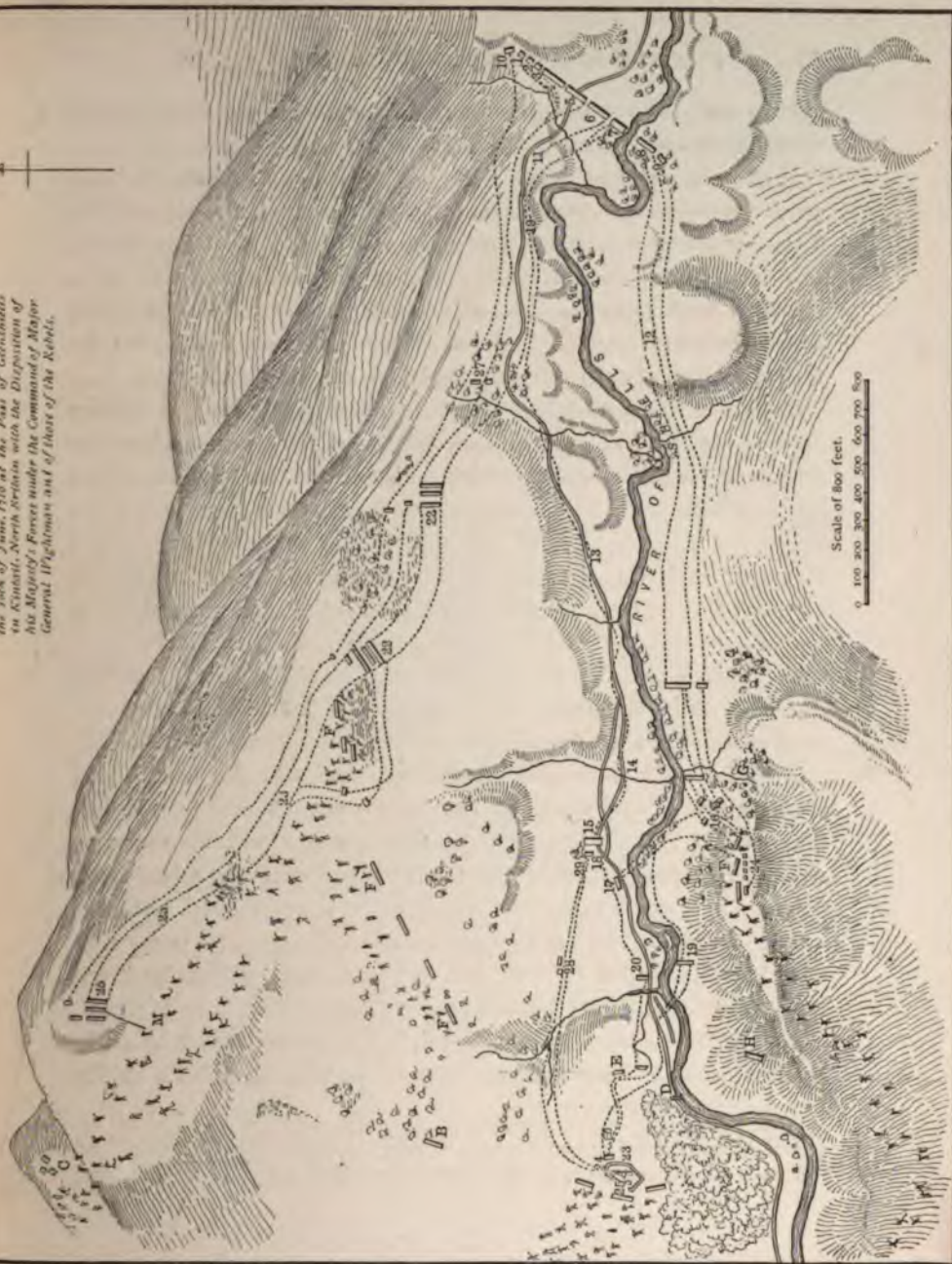
- | | |
|--|--|
| <ol style="list-style-type: none"> 1. A Sergt. and 12 Grenadiers. 2. An Officer and 24 do. 3. Main Body of Grenadiers, 120 in Num. 4. Col. Montagu's Regmt. 5. Col. Harrison's Detacht. Battalion. 6. Hussel's Regmt. & 4 Companies of 7. Dragoons. 8. Col. Clayton's Regiment. 9. The Monro's Highlanders. 10. The Sutherland's Right. 11. The first march by ye Right. 12. Clayton's march by the Left. 13. The Dragoons march to the Plain. 14. The Dragoons Halt. 15. The Dragoons advance to the middle of the Plain. 16. Clayton's four Plottoons and the Monro's making ye First Attack on ye Rebels' Right. 17. Cohorn Mortars throwing Granades at the Rebels where ye First Attack was Ordered. | <ol style="list-style-type: none"> 18. Cohorn Mortars throwing Granades at ye Spaniards in their Entrenchments. 19. Part of Clayton's attacks the Barricade of the Pass. 20. 35 Dragoons on Foot attack the Spaniard's Breast Works. 21. The Dragoons mount the hill. 22. Our March in line of Battle to the Rock* where the Attack began under ye command of Col. Clayton. 23. Our Right pursue the Rebells. 24. The Plottoons and the Monro's halt upon the Hill, having putt the Ennemy to the Flight. 25. Our Right halts upon ye Mountain. 26. Part of Clayton's takes possession of ye Hill that commanded the Pass. 27. Guard for the Baggage and place for the Hospital. 28. The Bagage advanced with the wounded men for their security. 29. Majr.-Genl. Whightman giving his directions during the Action. |
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REFERENCES TO THE ENNEMY.

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| <ol style="list-style-type: none"> A. A Spanish Regiment posted on the Hill that commanded the Plain and the Pass. B. Spaniards march to ye Mount & Halt. C. The Spaniards retire to the Top of the mountain. D. The Barricade that defended the Pass on the River Side. E. The Breastworks on the Side of the Hill. | <ol style="list-style-type: none"> F. The Highlanders drawn up before the attack. G. A straggling number of Highlanders fire upon the Plottoons of Clayton's and the Monro's behind them in the time of the attack. H. A body of Highlanders going to sustain their Right. The Flight of the Rebells. The Mount call'd Skururan the highest in Scotland except Benevis. |
|---|--|

¹ The date given by Dr Hill Burton (vol. viii. p. 342, ed. 1874), and by Dr Taylor, following him (*Pictorial History*, vol. ii. p. 879), is 11th June; but Bastide's plan, apparently drawn upon the spot, should settle this matter.

A Plan of the Field of Battle that was fought on the 10th of June, 1780 at the Pass of Greenbush in Kinross, North Carolina with the Disposition of his Majesty's Forces under the Command of Major General Wightman and of those of the Rebels.



western end of the pass, where the road came close to the river side, the rebels had erected a barricade (see plan, D), and a short distance from it, upon the rising ground to the north, they had thrown up breastworks in a position which commanded both the plain and the pass (A and E). These were occupied by the Spaniards, and formed the rebels' centre. The Highlanders were divided into nine companies, seven of them extended further up the side of Scur-Curan to form the left wing, whilst two were posted on the south bank of the river, and became, by their situation, both the right wing and advance-guard of the rebels.

To oppose this powerful disposition of the enemies' forces, Wightman drew up his line about twelve hundred yards—as the crow flies—from the Spaniards' breastworks, and extended his front in ten divisions. The dragoons were posted on the right (north) bank of the river, to form his centre (see plan, fig. 7), and the regiments of Hussel, Harrison, and Montagu (figs. 6, 5, 4), supported by three companies of grenadiers, formed his right wing; whilst a band of Sutherlands and Frasers were placed at the extreme right. Colonel Clayton's regiment and the Munro Highlanders formed his left wing, and were posted on the left (south) bank of the river. His whole front did not extend over 700 feet, and was much more manageable in motion than the scattered companies of the rebels.

A careful study of Bastide's diagram will show that Wightman's plan of attack was to break the rebels' line by throwing his chief force against their left; to take the Spaniards' position by assault with his dragoons, and to let Clayton's regiment and the Munroes disperse the rebels' right, separated as it was from their main body by the river. Scottish historians agree in stating that he was unsuccessful, and had to recall his troops after three hours' ineffectual fighting; and they lead you to believe that it was with surprise that he found himself victor after an indefinite engagement. But if Bastide's plan is to be accepted, this statement cannot be safely repeated; and the following description of the order of battle is strictly according to his references.

The Hanoverian right (Nos. 6, 5, 4, 3, 2, 1) made the first advance up the side of Scur-Curan, under the command of Colonel Clayton, and

attacked three companies, forming the enemies' extreme left, at the rock where they were posted (22, F). As the rebels were somewhat isolated here, a detachment of Hussel's and another of Montagu's broke their line by passing to the south of them, whilst the Sutherlands poured in their fire from the north. Assailed thus on three sides the rebels gave way, and fled up the mountain, closely pursued by their opponents (23), who finally halted near the summit of the lofty peak (25).

In the meantime Clayton's regiment and the Munroes (8, 9) advanced rapidly (12) against the rebels' right on the south bank of the river (F. 24), and Wightman led his dragoons and grenadiers with mortars by the road on the north bank, until they were opposite (17) the rebels' position on the other side of the river. From this spot grenades were thrown into the midst of the rebels before the Hanoverian left had reached them; and when Clayton's regiment was divided into four platoons (16), attacking them from different points, the rebels gave way and retreated towards their breastworks (A, E) by fording the river. A body of Highlanders (H), who had advanced to support the right, were too late to be of assistance, and (probably) fell back also. Clayton's regiment and the Munroes now occupied the post vacated by the rebels, and sent forward a detachment (19) to storm the barricade (D) on the river side.

The grenade-mortars (18) were next turned against the Spaniards' entrenchment (A), whilst a company of thirty-five dragoons dismounted (20) and attacked the breastworks (E) on foot. Alarmed by these combined movements, the Spaniards abandoned their position (A), and retreated up the mountain (B), and the main body of the dragoons (15), with General Wightman at their head (29), advanced and took possession of the deserted fort. The baggage and the hospital had been planted in the rear of the right after its first advance (27); but after the capture of the entrenchment they were brought forward to a place of greater security (28). The engagement had begun at five o'clock in the afternoon of a midsummer day, and had lasted for three hours; so that it was not easy to tell, as night overtook the combatants, to whom the victory

belonged. When Wightman reckoned his losses he found that he had 21 men killed and 121 men wounded, but he could form no idea of the loss on the other side.

Their loss, however, had been severe enough. Whatever the Spaniards had done, at least the Highlanders had fought bravely, whilst courage could avail, and three of their leaders—Seaforth, Tullibardine, and Lord George Murray,—had been borne wounded from the field. It is probable that, seeing their position to be hopeless, Marischall advised the Spaniards to surrender as prisoners of war; whilst Rob Roy counselled the Highlanders to disperse quietly to their homes ere the morning dawned. Ormonde's last attempt to overthrow the Hanoverian dynasty had proved a conspicuous failure. A party of the fugitives retired by Eilean Donan and destroyed all hope of further resistance by demolishing the magazine which the Spaniards had formed there.

A slight consideration of their situation when the following day broke upon them, convinced the Spaniards that all hope of escape for them was vain. They had fled for refuge to one of the peaks of Scur-Curan (C), and upon an eminence confronting them they saw the whole of the enemies' right wing arranged in order of battle. The natives whom they had come to aid had deserted them; their retreat by water had been effectually prevented by the return of their transports to Spain; and nothing remained for them but to surrender. Their leader, Don Alonzo de Santarem, resigned his sword to General Wightman, and 274 of his compatriots laid down their arms, and were carried to Edinburgh as prisoners of war. Seaforth escaped to France, and after some years resigned himself and his clan to General Wade. Tullibardine and Lord George Murray joined the court of the Pretender, and afterwards took a prominent share in the rebellion of 1745. Marischall and his brother escaped to the Continent, where the latter became famous as Marshal Keith; and within ten years the Highland clans had submitted,—for the time, at least,—to Hanoverian rule.

Thus ended the battle of Glenshiel, memorable as an episode in the revolution of 1715, and important as showing that regular troops could

be effectively manœuvred against the Highlanders, even in their most difficult fastnesses. That lesson bore bitter fruit afterwards on Culloden Moor.

MONDAY, 8th January 1883.

R. W. COCHRAN-PATRICK, Esq., LL.D., M.P., Vice-President,
in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows :—

ANDREW HUNTER BALLINGALL, W.S., Perth.
WILLIAM GIBSON BLOXSON, Craigholme, Tipperlinn Road.
JOHN GALBRAITH BRUCE, 13 Ainslie Place.
Rev. WILLIAM RUXTON FRASER, M.A., Minister of Maryton.
Major RANDLE JACKSON, The Priory, St Andrews.
JAMES AUGUSTUS SINCLAIR, 20 Bon Accord Terrace, Aberdeen.
GEORGE BALLINGALL STUART, M.B., Surgeon, Grenadier Guards.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors :—

(1.) By W. F. SINCLAIR, Collector, through JAMES BURGESS, LL.D.,
Archæological Surveyor, Western India.

Collection of six Cores and twenty-four Flakes of Flint from Sakkar, Rohri, in the Shikapore Collectorate, Upper India. The flakes vary from $4\frac{1}{2}$ inches in length, and about an inch in breadth to about 2 inches in length, and $\frac{1}{4}$ inch in breadth. Two of the cores are large, one measuring $4\frac{1}{2}$ inches in length, 3 inches in breadth, and $2\frac{1}{2}$ inches in thickness, from which flakes have been struck round half of the circumference; the other, which measures 4 inches in length by $2\frac{1}{2}$ inches in diameter, is conical in shape, and flakes have been struck from it all round the circumference. The remaining cores are small, about 2 inches in length and $\frac{3}{4}$ to $\frac{1}{2}$ inch diameter, cylindrical in form, and tapering to a point. The flakes that have been struck from these small cores must have been of

extreme tenuity, there being thirteen facets in the circumference of one core which is only half an inch in diameter.

(2.) By Lady HOPE JOHNSTON.

Bronze Sword (fig. 1) found near Keith House, East Lothian. It is of the usual leaf-shaped form, and measures $24\frac{1}{2}$ inches in extreme length, and $1\frac{3}{4}$ inches in greatest breadth of blade at about one-third of its length from the point. The hilt-plate is pierced for four rivets, two in the grip and one in each of the wings. The extremities of the hilt-plate have been filed off to adapt the weapon to a modern handle. With it there have been figured for the purpose of comparison, (1) a Bronze Sword from South Uist (fig. 2), 27 inches in length, greatest width of blade $1\frac{7}{8}$ inches at about one-third of its length from the point, least width at about the same distance from the hilt end $1\frac{1}{2}$ inches, with two rivet-holes in the hilt-plate and one in each of the wings; (2) a Bronze Sword, found in the River Tay (fig. 3), which is the longest in the collection. It measures 29 inches in extreme length, the maximum width of the blade at its widest, about one-third of its length from the point, being $1\frac{5}{8}$ inches, and the maximum width at about the same distance from the hilt end $1\frac{1}{2}$ inches. The form of the terminal portion of the hilt-plate differs from that of the South Uist specimen, and the rivet-holes are much smaller, and disposed two in the grip and two in each of the wings.

(3.) By GEORGE M. M'CRIE, Corquoy, Rousay, Orkney.

Flint Knife (fig. 4), a leaf-shaped flake, with considerable curvature, flat on one side, slightly convex on the other, finely worked to a sharp cutting edge all round. It measures $4\frac{1}{2}$ inches in length by 1 inch in greatest width. It was turned up by the plough in the Sourin Valley, in the Island of Rousay, Orkney, in October last, and is specially interesting as being one of a very few flint implements that have been found in the Orkneys.



Fig. 1. Bronze Sword
found near Keith
House (24½ inches
long).



Fig. 2. Bronze Sword
found in South Uist
(27 inches long).



Fig. 3. Bronze Sword
found in the River
Tay (29 inches
long).

- (4.) By ROBERT DUNN, West Kilbride, through R. W. COCHRAN-PATRICK, LL.D., M.P., F.S.A. Scot.

Cinerary Urn of Clay, 11 inches high, $8\frac{3}{4}$ inches diameter at the mouth, and $6\frac{1}{4}$ across the bottom, the upper part ornamented with two lines of



Fig. 4. Flint Knife found in Rousay, Orkney ($4\frac{1}{2}$ inches in length).



Fig. 5. Urn found at Seamill, West Kilbride, Ayrshire (11 inches high).

impressed markings underneath the rim, and a band of zig-zags of two parallel lines, bordered by a slightly raised and rounded moulding above and below. It was found in excavating at the junction of the new road to Seamill with the turnpike road from Ardrossan to Largs.

- (5.) By WILLIAM SOUTTER, Church Lane, Kirkcaldy, through Dr JOHN ALEXANDER SMITH, Secretary.

Bronze Armlet, penannular, with expanded ends, having circular per-

forations, which, like those in some other examples of its class, had probably been filled with enamelled plates. It measures $5\frac{1}{4}$ inches in its longest diameter, $2\frac{1}{8}$ inches across the middle, and $2\frac{7}{8}$ inches across each extremity, and weighs 2 lbs. 9 $\frac{1}{2}$ ounces. It was found about forty years ago by a man digging in a field near Seafeld Tower, between Kinghorn



Fig. 6. Bronze Armlet found near Seafeld Tower, Fife.

and Kirkcaldy. It has already been for a considerable time in the Museum (having been lent for exhibition by Mr Soutter), and has been described in the *Proceedings*, vol. iii. (new series) p. 343, by Dr John Alexander Smith, through whom it is now presented to the National Museum by Mr Soutter.

(6.) By JOSEPH CARNE ROSS, M.D., F.S.A. Scot.

Stone Cup, of reddish, highly-micaceous sandstone, $5\frac{1}{4}$ inches diameter, with short rounded handle. The upper parts of the sides of the cup are broken away, but it does not seem to have much exceeded $1\frac{1}{2}$ inches in depth. It was found in the Black Isle, Ross-shire.

(7.) By WILLIAM CHAMBERS, LL.D., F.S.A. Scot.

Stone Weight (of 28 lbs.), with looped iron handle fastened with lead, found underneath the flooring of the Church of St Giles, Edinburgh, during the recent alterations of the fabric by Dr Chambers.

(8.) By JOHN EVANS, D.C.L., Hon. Mem. S.A. Scot.

Gold Coin (Half Unit) of Charles I. Falconer's Coinage, F after REX and above crown on reverse.

(9.) By GEORGE SETON, M.A., F.S.A. Scot., the Author.

Memoir of Alexander Seton, Earl of Dunfermline, President of the Court of Session, and Chancellor of Scotland. 4to. Edinburgh, 1882.

(10.) By Colonel HENRY YULE, C.B., Hon. Mem. S.A. Scot.

The Book of Ser Marco Polo, the Venetian, concerning the Kingdoms and Marvels of the East. Newly Translated and Edited, with Notes, Maps, etc. By Colonel Henry Yule, C.B. Second Edition. 8vo. 2 vols. London, 1875.

(11.) By ROBERT CRAIG MACLAGAN, M.D., F.S.A. Scot., the Author.

Scottish Myths. Notes on Scottish History and Tradition. 8vo. Edinburgh, 1882.

(12.) By ROBERT VANS AGNEW, F.S.A. Scot., the Editor.

Correspondence of Sir Patrick Waus of Barnbarroch, Knight, 1540-97. Edited from the Original Documents. By Robert Vans Agnew. 8vo. Edinburgh, 1882.

(13.) By ROBERT MUNRO, M.A., M.D., F.S.A. Scot., the Author.

Ancient Scottish Lake-Dwellings or Crannogs. With a supplementary chapter on Remains of Lake-Dwellings in England. 8vo. Edinburgh, 1882.

(14.) By WILLIAM DOW, Montrose Golf Club, through GEORGE HUNTER THOMS, Sheriff of Orkney, &c., F.S.A. Scot.

Golf Ball of Feathers, made by Allan Robertson, St Andrews.

(15.) By GEORGE HUNTER THOMS, Sheriff of Orkney, &c., F.S.A. Scot.

Golf Ball of Gutta-percha, one of the first of that material.

(16.) By THOMAS CHAPMAN, jun., F.S.A. Scot.

Two Golf Balls, made of feathers and covered with leather.

(17.) By the PRESIDENT AND COUNCIL OF THE ROYAL SCOTTISH ACADEMY.

Fifty-fifth Annual Report of the Council of the Royal Scottish Academy.

(18.) By ALEXANDER J. RUSSELL, C.S., 9 Shandwick Place.

View of Edinburgh. An early engraving.

There were Exhibited :—

(1.) By the Right Hon. THE EARL OF STRATHMORE, F.S.A. Scot.

Massive Bronze Armlet, found in the neighbourhood of Glamis. [See the subsequent communication by Dr John Alexander Smith.]

(2.) By Sir JOHN MARJORIBANKS, Bart. of Lees, through DAVID DOUGLAS, Treasurer.

Bronze Spear-head, of unusual size, with segmental openings in the blade, found near Duddo Castle, Northumberland. [See the subsequent communication by Dr Joseph Anderson.]

The following Communications were read :—

I.

ON A SILVER BROOCH FROM MULL. BY PROFESSOR DUNS, D.D., F.S.A.
SCOT.

I am indebted to Mr John Maclean, farmer, Kengharair, Kilmore, Mull, for permission to show this brooch to the Society. It is highly prized by its owner for its own sake, but chiefly because it belonged



Fig. 1. Silver Brooch found in Mull—Obverse (actual size).

to a deceased brother by whom it was found about fifty years ago. On a former occasion, I described several brooches from this island, but the present is altogether unlike these, both in shape and ornamentation, and seems to point to a type of which we have as yet no other examples.

As regards shape, so far as I am aware there is nothing like it in the Museum, except a small form in the Culbin Sands' collection. In the ornamentation there are instances of zoomorphic, undulating, foliaceous, floral, twisted rope, interlaced ribbon, nail-head, lozenge, fret, and geometric patterns, while the employment of niello to bring out the figures introduces another interesting feature. It points to a designer who fully



Fig. 2. Silver Brooch found in Mull—Reverse (actual size).

apprehended the value both of early and later Celtic ornamentation. There are, moreover, slight changes introduced into compartments whose general features correspond, which show that the workman was not a mere copyist, but one who had confidence in his own powers and taste. The brooch consists of a flattened ring of silver, $\frac{6}{8}$ ths of an inch at its broadest,

and $\frac{3}{8}$ ths at its narrowest parts. The outside rim is octagonal, the inside rim is a circle with a diameter of $2\frac{3}{4}$ inches. It is divided into compartments, each compartment having its characteristic ornament, and being separated from the adjoining one by a line or lines. The arcs introduced to indicate the octagon on the outside edge are segments of a larger circle. Taking the side (fig. 1) bearing the ribbon, or letter-like ornament, as the obverse, and the compartment to which the pin is attached as 1, numbering left to right, we find that compartments 1 and 5, 3 and 7, bear the letter-like figures; 4 and 8, branching trefoils, nearly correspond; 2 and 6 quatre-foils, but different. In the same way on the reverse (fig. 2) we have 1 and 5, quatrefoils; 2 and 6, human-headed zoomorphs; 3 and 7, lozenges on geometric pattern; and 4 and 8, corresponding dragonesque forms. The pin is kept in position by a strongly rivetted bar, having a clip at each end into which the rim is fitted, a slight ornamentation of slanting stroke passing round the rivets. A simple herring-bone like pattern runs the whole length of the pin, which bulges a little in the middle, like a highly elongated oval, or, in botanical phrase, ovate-lanceolate. The head consists of a strong flattened part with a round hole in the centre, open at the top, set at right angles to the shaft, projecting well on both sides beyond the bar, and ornamented on each side by four horizontal furrows. The clasp-like head has been slipped on to the bar after it was rivetted to the rim. In closing this brief notice, I cannot help expressing my earnest hope that Mr Maclean may see his way to present this very interesting specimen to the Society. Meanwhile I leave it in Dr Anderson's hands.

II.

NOTES ON NORTH MULL. BY PROFESSOR DUNS, D.D., F.S.A. Scot.

Were a line drawn from Pennygown on the Sound of Mull to the deep indentation on the west coast formed by Loch na Keal, the district lying to the north of this line is that in which the following notes were made. I have visited North Mull thrice, on the last occasion having spent eight weeks in it, with the view of examining its geology, and at the same time jotting down any archæological facts that might be met with. Conditions of the surface were expected of interest from the point of view of geologico-archæology. It was soon found that the locality affords very full scope for hypothesis, in connection with so-called scientific data; but I have tried to limit myself as much as possible to facts. The geology of this part of the island might almost be said to be without a literature, if we except the excellent papers of Professor Judd, published in 1878. It has fared even worse as regards the literature of its archæology. In 1818 Macculloch wrote,—“Uninteresting and inconspicuous as are in general the antiquities which occur in the islands hitherto described, those to be seen in Mull are still more rare and less deserving of notice. The enumeration of cairns, barrows, or gravestones is indeed fruitless and scarcely capable of furnishing amusement to the mere antiquary. Nor does any monument of this nature seem here to exist worthy of investigation or research.” (*Western Isles*, vol. i. p. 535.)

The field has in a great measure been left untouched, and to one entering it for the first time it presents the freshness and interest, if not novelty, which we associate with an unexplored territory. The relations of its different lavas both among themselves and to the more recent traps; the influence of these volcanic masses on the edges of the coal measures, which they meet at some points, and on the liassic beds which they break at others, leaving them as fragments of a fringe around the coast; the proofs of remarkable denudation which everywhere meet the eye; the innumerable marks of glacial action, on the low ground, in elevated valleys, on the hill

slopes, even to the summit of Speenie More, 1455 feet above the level of the sea ; and the lie, depth, and characteristic contents of peat deposits, are all of greatest interest to the geologist. And I venture to affirm, in view of Macculloch's statement, that the archæologist will find it not less interesting. The antiquarian notices in the new statistical account are very meagre and unsatisfactory. And the only other references to the antiquities of North Mull with which I am acquainted occur in a short paper by Professor Judd, entitled " Notices of some Ancient Chapels and other remains in the Island of Mull."

In conversation with good Celtic scholars, I learned that in the names of natural objects and of places there are traces of what might be called tribal layers of population—Pictish, Cymric, Norse. And I am persuaded that rich rewards await competent students who shall enter this field, and work in the lines followed by the author of *Celtic Scotland*, by Captain Thomas, in his contributions to our *Proceedings*, and by Dr Maclauchlan, our late Vice-President. It lies outside of my studies. I propose to ask the attention of the Society to the present notes in the following order :—Standing Stones, Stone Circles, and Forts, reserving Sculptured Tombstones, and some general notices, for another meeting.

1. *Standing Stones and Circles*.—In the district the term standing stones is applied both to stone circles and monumental monoliths. But as it is well to distinguish between them, I begin with the latter.

(a) The Ardnacroiss stone, about 4 miles south of Tobermory, is situated on a cultivated slope nearly 600 feet above the sea, on the farm of the same name. It consists of compact bluish trap, common in the neighbourhood, and measures 9 feet 4 inches in height, 3 feet 10 inches in breadth at the surface of the slope, 1 foot 4 inches in thickness at the same, is a little broader and thicker two feet up, and then gradually tapers to a blunt top. Its position is unusually grand. That these stones, however, were not always placed in such outstanding situations is shown by reference to (b) another, which stands near the foot of the steepest part of the Torloisk road about a mile to the west of Kilninian Church. Compared with the Ardnacroiss stone, this one is small, the height being 5 feet 6 inches, the

breadth 2 feet, and the thickness only half a foot. At present well-wooded slopes lie around it shutting out the view, but even were the spot treeless the view would not be wide.

(c) Not far from Ardnacroiss, to the north and higher up the slope of Tom Perock (808 feet), is a stone 5 feet long, 3 feet 6 inches broad, and nearly as thick, lying near the edge of a well-marked circle, 30 feet in diameter; several large stones occur near. It lies with its broad end up the slope, and gives one the impression that it may have been a capstone, and the other stones the uprights on which it rested. But as the association of these stones has considerable resemblance to a heap observed in 1881 on one of the outlines of Ben Nevis, which I have no doubt was to be ascribed to glacier action, it is not improbable that the Tom Perock stones may be traceable to the same force.

(d) In a low valley bordering on the sound of Mull, about 300 yards from the farm house of Ardnacroiss, I met with a circle 15 feet in diameter, whose features were new to me. The rim has consisted of upright stones placed close to each other, much like the flagstone fences in the neighbourhood of Wick and Thurso. Five of the uprights, which seem to stand deeply in the ground, are 3 feet 6 inches high from the surface. Three are a little lower, and widely separated from each other by still lower stones which intervene and which look as if they had been broken over. The centre consists of a heap of comparatively small stones, the largest being about the size of the human head. These have been gathered in the neighbourhood, some of them being rounded lumps of travelled gneiss and granites, which do not occur here *in situ*. This circle is not half a mile from the Ardnacroiss standing stone, which cannot, however, be observed from it. But the scene is almost as wide and grand. I turned over a good many of the stones in the centre, and picked up several which seem, to me at least, to suggest that they had been worked for some rude purpose (specimens exhibited). Had these occurred at a distance from each other on the surface I do not think they would have attracted notice, but lying together at least 2 feet deep they caught the eye.

(e) The standing stones of Baliscate are situated about half a mile to the south of Tobermory, on one of those broken terraces which form a marked feature of Mull scenery, and look as if some giant force had cut a huge slice horizontally from a hill top, thereby turning the peaked crest into a broad plain. They occur at different levels, from 200 feet, as at Balliscate, to 1455 feet, as in the case of the flat top of Speenie More close at hand. The Baliscate stones are three in number, two upright and one prostrate. The larger upright is 8 feet high, 10 feet in girth at the surface of the ground, and 10 feet 4 inches half way up the stone, where it begins to lessen gradually till it becomes about a foot across the top. In shape it is an irregular pentagon, the natural prismatic form which may be seen in any of the neighbouring whinstone quarries. The smaller upright is quadrangular in shape, a form which is also common in natural blocks, 5 feet 4 inches high, and 2 feet 4 inches thick. The prostrate stone, which is also of blue trap, is 8 feet 9 inches long, and is at present nearly covered by turf. The distance between the uprights is 14 feet 6 inches. There can be no doubt that these stones are the remains of a regular stone circle. On the largest a number of hatched grooves occur, exceedingly like glacial markings, but these may only be freaks of weathering, of which there are many on the rocks of the district, some cup-like, some like human foot-prints, others presenting dendritic tracery almost a match for the foliaceous work on the so-called "Iona stones."

(f) In an upland valley above and to the east of the village of Dervaig, are the standing stones of Kilmore. They occur in a hollow surrounded by a number of trap bosses, and have formed part of a circle with a diameter of 50 feet. They are five in number. Approached from the highway, the first, which is prostrate, is 7 feet 6 inches long and 2 feet 5 inches thick; the second, an upright, is 8 feet 3 inches high and 2 feet thick; the third, prostrate, 7 feet 9 inches long and 2 feet thick; the fourth, upright, 8 feet high and 2 feet thick; and the fifth, prostrate, is 11 feet long and 3 thick. The distance between 1 and 2 is 22 feet; between 2 and 3, 8 feet 8 inches; between 3 and 4, 5 feet 8 inches; and between 4 and 5, 8 feet 4 inches. Eight feet may be taken as the original

distance between the stones, two of which may have intervened between 1 and 2. Though placed in a mountain valley, the view from this circle is very wide, varied, and grand.

(g) Of the three stones at Sorn on the extreme north of Mull only one is in an upright position. Its measurement is, height, 7 feet; thickness, 1 foot 4 inches; girth, 8 feet. One of the prostrate stones is 8 feet 10 inches long, 2 feet 10 inches broad, and 10 inches thick; the other is 8 feet 8 inches long, 1 foot 9 inches broad, and 1 foot 2 inches thick. They are all of trap. Near them is a circular heap of considerable size, made up of comparatively large stones. The remains of the Sorn circle lie on the seaward edge of a fine natural amphitheatre about a quarter of a mile across. Sorn Cottage—*Laga chlamhain*, the Kite's Hollow—stands on the landward edge, with Glengoram House at a short distance. From the top of a little hill close by the circle a magnificent view opens up. To the north, the point of Ardnamurchan, Muck, Eigg, Rum, and, on such a day as I visited it, the Cuchcullins of Skye; to the north-west, South Uist and Barra; to the west, Coll and Tyree; and far away to the north-east, the mountain ranges in Morar and Knoydart.

Looking at these circles in this part of Mull, it will be seen that they all occur in positions commanding a wide and varied view, and can be observed over a very extensive area. In several instances a standing stone is met with in the neighbourhood of the circle, but where this is the case the stone cannot be seen from the circle itself. It is hardly possible to be alone in the presence of these rude monuments in their solitary situations without asking, "What mean these stones?" Can we piece them into the historic mosaic and surround them with the conditions of the social and industrial life of defined periods? Can we relegate them with the habits of certain great human families—as Pictish, Gaelic, Cymric, Scandinavian, and the like—and with limited historic ages? I believe the answer to these questions must be negative, and that, as yet, accompanying remains do not warrant inferences that go much farther than the recognition of use. Here, indeed, we have the light of true history—light on times, it may be, anterior to the peopling of the British Isles—to show

us that standing stones were set up by individuals to commemorate periods of mental conflict or of deep satisfaction (Gen. xxviii. 16-22); by chiefs to testify to household or tribal compacts (Gen. xxxi. 45-52), in this case the standing stone is associated with the cairn—"gather stones, and they took stones and made an heap"; by individuals for purposes of worship (Gen. xxxv. 13-15); to commemorate the dead (Gen. xxxv. 20); to commemorate national deliverances (Exod. xxiv. 4), where we have the altar and twelve standing stones (Josh. iv. 5, 9); as boundary marks (Josh. xviii. 17; Isa. xix. 19); to mark some great historical event (Josh. xxix. 26, 27; 1 Sam. vi. 18); to commemorate a victory (1 Sam. vii. 11, 12); to mark the spot where kings were anointed (Judg. ix. 6; 2 Kings xi. 14; 2 Chron. xxiii. 13); and as a personal memorial (2 Sam. xviii. 18). It is to be noticed that all these uses existed among a comparatively highly civilised people. Here the rudeness of the monuments tells nothing of the culture of those who raised them, and is of no service in attempts to indicate time. But the variety of uses they were made to serve, should be remembered by all observers.

I made earnest and special quest after stone implements and urns in localities where the standing stones occur, but with small success. Almost all to whom I spoke had seen such things, but they could not now be traced. Mr M'Lean of Gometra asked me to look at some in his possession, said to be "of stone like flint," but I was unable to visit that island. Mistakes occur as to these articles. For example, I was told that, during my visit, the point of a round stone spear had been picked up in the course of drainage operations, and in what seemed to be an impossible position. Getting hold of it, I found it to be an excellent fragment of a belemnite (*Belemnites elongatus*) which I had more than once obtained from the liassic strata, near the harbour. (Specimen shown).

In taking out soil for the foundation of a new Free Church at Salen recently, the men came upon several half-length stone coffins formed very rudely of loose stones, in one of which I was informed by one of the workmen, a small urn was found, which was broken by accident. The

architect of the church, John C. Hay, Esq., took possession of the fragments and the articles found along with the urn. In kindly sending them to me, Mr Hay says the urn was "found while digging the foundation of the Salen church, at about 22 feet from the surface, in a sharp gravelly soil. It was unfortunately broken to pieces by falling into the trench along with some other loose gravel. I also send you the flint and two small pieces of metal found beside it." Much of the urn crumbled into dust. (Specimen shown). I regret that the fragments are not sufficient for building up the urn, though they present one or two features worthy of notice, especially when associated with the bits of bronze. The vessel has been of small size. The fragments are all more or less well marked by the string ornament, which, from the deep and sharp indentations made by it, may have been of twisted grass. The indentations are not all of one size, and are just such as a double strand of rough brome grass (*Bromus asper*), abundant where the urn was found, makes when pressed on not over wet clay. The cord has been carried round the the vessel at nearly equal distances of about two eighths of an inch, the string markings being all horizontal. The fragments of metal do not seem to have formed part of a blade. On the partially crescent-shaped bit a straight rounded line with longitudinal furrows is seen slanting across, while on the thickest part of the other piece there are hints of further ornamentation.

3. *Forta*.—(a) Dhun Ghirgeadail is situated on a slight eminence to the west of Tobermory, on the left of the new road to Sorn. It is circular and occupies the greater part of the top of the low hill. The enclosed space is 37 feet in diameter, and the thickness of the walls is 11 feet. A portion of the wall, nearly 5 feet high, still stands and supplies a good example of the mode of building. The outer and inner faces are composed of well built stones of a large size, the irregular spaces where the unequal ends of the large stones meet are neatly filled in with flat-edged small stones, while the centre consists of stones which had been thrown in without regard to regularity. Within the building close to the east wall is a square hollow, roughly built on three sides, containing a

great number of shells of whelks (*Littorina*) and limpets (*Patellidae*), some of the latter being unusually large. No other kinds of shells occur. I dug down into this hollow about 3 feet, and found only shells and stones, lying, however, in such a way as to suggest alternate layers. In a moorland track about two miles from the sea, I met with a similar deposit of shells and small stones, more than a foot deep, in peat recently cut, whose position was at first a puzzle. But I subsequently learned that so recently as ten or twelve years ago, if not even now, it was common for the young people who were sent to tend the cattle on the hills to take bags of shellfish with them for food—partially roasting them on heated stones. This may account for the numbers of broken shells which occur both at the fort and in such heaps. In one of these heaps I found a bit of pottery having an old-like look about it, but on showing it to a Mull man he remarked, "It is a bit of smuggler's can."

(b) Two interesting examples of circular forts, or burgs, occur on the shore at Torloisk,—one, Dhun a Gail, at Ballygown, opposite the Sound of Ulva, the other Dhun Eiskean on the farm of Burg. I notice the latter, which is about three miles from Lord Northampton's place, Torloisk lodge, and stands on a rugged eminence opposite Gometra. It is $34\frac{1}{2}$ feet in diameter, and the walls are 6 feet thick, the thickness decreasing as they rise. Their present height is 7 feet, at which height traces of loopholes appear. The doorway is in the north-west wall, and is neatly built with stones which at first sight might lead to the belief that they had been in the hands of a workman. But this is accounted for by the fact that the trap rocks in the neighbourhood break up, when quarried, in blocks with a comparatively square surface. It is clear at present to a depth of 3 feet, the rest being filled with large stones which prevent measurement. The lintel is an oblong slab of trap 5 feet $11\frac{1}{2}$ long and one foot thick. The corresponding stone inside is 5 feet 6 inches long. The passage itself is 3 feet 10 inches broad. In the wall opposite the door there is a narrow opening into the centre, where passages occur to the right and left, very narrow at first, but widening as they extend. I was able to trace them six feet either way. All the wall at the same height

from the ground seems to be chambered. The view from the walls takes in the Benmore range of mountains, the opening of Loch na Keal the sound of Ulva, Ulva itself, and Gometra. The popular belief is that this fort is connected by long passages with a distant part of the coast, and also with two caves on the shore near by—Uamh Fhada, the long cave, and Uamh Slochd a Cleusaiche, the actor's cave. The entrance to the former from the shore is between two perpendicular cliffs of trap, between 70 and 80 feet high, interesting in themselves as striking lenticularly into the mottled, chocolate-coloured lavas which accompany them. At about 30 feet from the mouth a strong wall has been built across the cave, leaving room for one man only to creep over the top. Beyond this wall the cave widens and increases in height. The floor is covered with water-worn pebbles and dove's dung, both of the caves being favourite resorts of the rock dove (*Columba livia*), many of which flew out as we entered. The mouth of the actor's cave is exceedingly picturesque. The water from the surface forms a veil for it as it flows over in crowded heavy drops, while a deep frill of luxuriant hart's tongue ferns pass round the top, most of them beyond the reach of visitors. These caves are said to have been much frequented in former days by smugglers. But so far as I could make out, man has not left his mark either on their walls or on their floor.

(c) Caisteal Cnoc na Sreainga; the remains of this magnificent fort occur on a hill a short way above Glen Aros House, near Salen. The shape, which follows the hill, is sub-oval. The measurement in the longer axis is 88 feet, and in the shorter 53 feet; thickness of walls $10\frac{1}{2}$ feet; highest part of the walls still standing $4\frac{1}{2}$ feet. The whole has been exceedingly massive and strong. The stones which form the face of the walls both inside and outside are, for the most part, large, and imply the forthputting of much skilled labour in placing them in position. The mode in which they have been built in would do credit to a workman with all the resources of present art at his disposal. The body of the walls, as in the case of Dhun Ghirgeadail, consists of much smaller stones thrown in loosely. They must, moreover, have been gathered from the

surface in the neighbourhood of the fort, because they are for the most part rounded stones of different sorts, as trap, quartz, gneiss, granite, and, in one instance I noticed clay slate, the trap alone being met with *in situ*, the others having been brought from a distance by glacial forces, of which there are many traces all around. I was informed that several years ago a shepherd found a fine brooch among the ruins, which, after passing through several hands, was taken to London. A finer position for a stronghold can scarcely be imagined.

(d) Dhunara stands on a precipitous rock close to the sea and about 400 yards from the Sorn standing stones. The fort proper is 40 feet long by 19 feet broad, inside measurement. The wall is 3 feet 6 inches broad, and at several points it is still 3 to 4 feet high. The stones which face the walls outside and inside, have flat equal surfaces, and have been placed with much care. They are bedded in what might be called natural mortar. That is, shore sandy debris, consisting mainly of finely comminuted shells, has been formed into a paste by the use of sea water and used for building. This when dry makes a strong hard cement. Thus what remains of the walls is exceedingly well compacted, and almost refuses to yield to the hammer. The foundations of two smaller buildings, 19 feet by 10 feet severally, on other parts of the hill are well marked. There is also a large artificial hollow but without any traces of building connected with it. That the buildings on the top of the rock had been used to supply stones for cottages whose remains occur at the fort is beyond doubt, because some of them have bits of the natural lime still clinging to them. The workmanship of these cottages contrasts most unfavourably with that of the fort. It is coarse, unsymmetrical, slovenly, and rude. The whole area of the top of the rock, which, however, is very irregular in outline, is 109 feet at the largest part and 69 at its broadest. Access to the summit is by a deep narrow way in the rock, wide enough for one man only.

The ruined forts of that part of Mull to which the present notes are limited are found on or near the coast. Three of them are circular, one follows the shape of the hill, and another is oblong, occupying a free

space on the top of the hill. I record the facts; but while admitting that, as in the case of the circular forts, it is not unlikely we have examples of the building style of one tribe and traces of their presence in the district, we are not forced to infer that the same tribe always built in the same style. This may have been the case, but really we have no better warrant for the inference than we have for the assertion, often made, that the stone circles and the standing stones of Britain are memorials of a time when the inhabitants of Britain were of one so-called race, and presumably of one religion. In matters of this kind we weaken the value of our inferences by forgetting, on the one hand, the overlapping of tribes essentially different in habits and manners, to such an extent as to plant the monuments of one tribe in the heart of the history of another characterised by widely different forms of art and of customs; and, on the other hand, by leaving out of view the fact that there are few tribes so low as to have lost that peculiarly human quality which ever seeks to give expression to individuality in variations of modes of building, and in finding new channels for old modes of thought and old customs. There is ever danger in being too sharply dogmatical on such questions, and thus losing their full significance as data for generalisations relative to pre-historic time.

III.

NOTICE OF A MASSIVE BRONZE ARMLET, THE PROPERTY OF THE
RIGHT HON. THE EARL OF STRATHMORE. BY JOHN ALEXANDER
SMITH, M.D., SEC. SOC. ANTIQ. SCOT.

Soon after the publication of the third volume of the *New Series* of our *Proceedings*, in which a paper was published on these massive bronze armlets, I received a letter from the Rev. Canon Greenwell of Durham, kindly informing me of the existence of still another armlet of the same class, which was in the possession of the Right Hon. the Earl of Strathmore, at Glamis Castle, Forfarshire. Accordingly I wrote to the Earl, and he politely agreed to my request to send the armlet (which I have now the pleasure of exhibiting) to be deposited for exhibition in our National Museum. The Earl informs me that some time ago he acquired a small local collection of antiquities, of which this armlet formed a part. He was not aware of the exact place where it was found, but believed it to belong to that district of country. The armlet is formed of a very yellow bronze or brass, and is ornamented with transverse and oblique ornaments, regularly and alternately placed round its surface—the interspace next the rounded ends of the armlet being generally richer or double in its pattern. The armlet appears to have been much worn by use, especially on one side. It belongs to what I have designated the Second or Folded or Spiral pattern or variety; it having the appearance of a band folded back on itself towards each extremity; so as to leave a rounded opening at each end of the pennanular armlet. These openings have been probably filled up at first with ornamental plates enamelled in colours, as is still shown by the segments of three small notches still remaining in the edge of thinner metal left as a border to these rounded openings to rest their plates upon, and in which the rivets or nails had passed to fix the plates to the armlets. In some of these massive armlets

the enamelled plates still remain. The armlet weighs $1\frac{3}{4}$ lbs. avoirdupois, and measures $2\frac{1}{2}$ inches in height, and $4\frac{1}{4}$ inches in its greatest diameter.

This remarkable class of armlets, with the exception of one found in Ireland, probably a wanderer from Scotland, and another found in Peeblesshire, as detailed in my previous paper, have been found almost entirely in the north-eastern districts of Scotland.

The armlet belongs to what Mr Franks has designated the "Late Celtic style of art," as differing from that of the Earlier British or Bronze



Fig. 1. Massive Bronze Armlet found at Glamis. $\frac{1}{2}$.

period of art, but which I am now inclined to designate the Early Celtic or the Pagan Celtic style of art of Dr Joseph Anderson. To distinguish them at once from the older, or native British art of the Bronze period,

and also from the more modern, elaborately ornamented and distinct style of the true Later Christian form of Celtic art.

The Pagan or Early Celtic style of art may have dated from before and after the Roman occupation; one of the armlets previously described having been found along with a bronze vessel of Roman form and probably also of Roman manufacture.

This armlet is therefore an addition to our knowledge of these objects, and added to those previously described by me, includes all the specimens of these ancient Scottish armlets now known to exist. A careful drawing of this armlet has been made, which well shows its much-worn condition; and completes the series of figures of all these armlets known up to this date. Our best thanks are due to the Earl of Strathmore for his politeness in sending the armlet for exhibition in the Museum along with the other specimens in the care of the Society.

I am also happy to call the attention of the Society to a very fine specimen of this same class of massive armlets, found some time ago at Fife, and previously described by me; which is to-day presented by William Soutter, Esq., Kirkcaldy, to our National Museum. It forms a valuable addition to this important series of objects of ancient Celtic art, for which Mr Soutter well deserves the best thanks of the Society.

IV.

NOTICE OF A BRONZE SPEAR-HEAD FOUND NEAR DUDDO CASTLE,
NORTHUMBERLAND, THE PROPERTY OF SIR JOHN MARJORIBANKS.
By JOSEPH ANDERSON, LL.D., ASSISTANT SECRETARY, AND KEEPER OF
THE MUSEUM.

The spear-head (fig. 1) now submitted to the inspection of the Society was found recently by a drainer in Bowsden Moor, near Duddo Castle, Northumberland, on the property of Sir John Marjoribanks of Lees, to whose courtesy we are indebted, through the intervention of Mr D. Douglas, for its exhibition. It measures 17 inches in length, of which the socket is 4 inches, and the blade 13 inches. The greatest width of the blade is 3 inches, at about 10 inches from the point. The socket extends almost the whole length of the blade, or to within about an inch of the point, and it projects for 4 inches beyond the base of the blade. It is pierced by two rivet holes in the plane of the blade at the distance of 2 inches from its extremity. The special peculiarity of the specimen is that it presents two segmental openings, one on either side of the socket and close to it, in the widest part of the blade, which cause the socket to reappear in the centre of the blade. These openings have been formed in the casting, and differ in character from the narrow elongated openings often found at the base of the blade (as shown in fig. 2), which are analogous to the loops placed in the socket, as seen in figs. 5 and 6. The socket of this specimen, which is cylindrical in the part that projects beyond the blade, becomes hexagonal externally as it passes through the space between the openings, the curvatures of its circumference passing gradually into flattened surfaces, and so continuing to the point. A slightly raised moulding passes along either side of the socket from point to base of the blade where the mouldings from its opposite faces run together, and are continued to the rivet holes against which they are cut off abruptly. The segmental openings in the blade are also bordered by a slightly-raised moulding of similar character. The edges of

the blade have been thinned out by the hammer and probably planished



Fig. 1. Bronze Spear-head found near Duddo Castle (17 inches in length).



Fig. 2. Bronze Spear-head found near Belhaven (15½ inches in length).



Fig. 3. Bronze Spear-head found near Denhead, Coupar-Angus (19 inches in length).

with a whetstone. The whole surface is now covered with the fine brown patina characteristic of bronzes that have come from marshy soil.

The special features of the specimen are—(1) its great size, 17 inches in length. There are very few larger, for although one specimen has been found in Ireland of more than twice the length, such instances are very uncommon. I only know two in Scotland that exceed this Northumberland specimen in length. One of these is the fine example in the national collection (fig. 3), found at Denhead, near Coupar Angus. It measures 19 inches in length, and is remarkable for its fineness of shape, and also in having the blade pierced both by segmental and circular openings. The other example is in the Elgin Museum. It belongs to the variety with the thin blade, with long straight edges and loops formed in the base of the blade.

The second special feature of the Northumberland specimen is the presence of these segmental openings in the blade. This is not a common



Fig. 4. Bronze Spear-head found near Forfar ($6\frac{1}{4}$ inches in length).



Fig. 5. Bronze Spear-head found in Lanarkshire ($5\frac{1}{2}$ inches in length).

feature. It is exhibited by very few examples in the Scottish collection—I cannot say how many, because of the five examples which we possess in our national collection two have no localities—but in the collection of the

Royal Irish Academy, Dublin, out of 180 specimens, only 16 present segmental openings in the blade. This, however, was the character of a number of the fragments of spear-heads that were dredged out of the bottom of Duddingston Loch in 1780, and among the remains of that remarkable hoard that are preserved in our Museum, there are five or six that show the segmental openings distinctly.

Sometimes these openings in the blade were not symmetrical, and at



Fig. 6. Bronze Spear-head, locality unknown (9 inches in length).



Fig. 7. Bronze Spear-head found at Crawford, Lanarkshire (8½ inches in length).



Fig. 8. Bronze Spear-head found at Linton, Roxburghshire (8 inches in length).

other times they were not placed exactly opposite to each other. Most if not all of these pierced blades have rivet holes in the sockets, while the unpierced are divided into two varieties, one of which (see fig. 4) has rivet holes in the socket, and the other (see fig. 5) has loops instead of

rivet holes. The looped form is again divided into two varieties, one of which has the loops standing free on the socket (as in fig. 6), the other having the loops (as in figs. 7 and 8) formed in the base of the blade itself. All specimens that want the loops are leaf-shaped. Those that have loops exhibit a great variety of forms, the larger examples being often long, thin straight-edged blades, and the smaller triangular in outline, fluted in the blade, and occasionally ornamented like the specimen (fig. 9) here shown from the Dean Water, Forfarshire.

These looped varieties, and those with segmental openings in the blade, are distinctively British forms, but very few examples with these special features being known on the Continent. They belong to the close of the bronze period; and it is worthy of remark that no well authenticated instance of a bronze spear-head of any kind having been ever found in connection with an

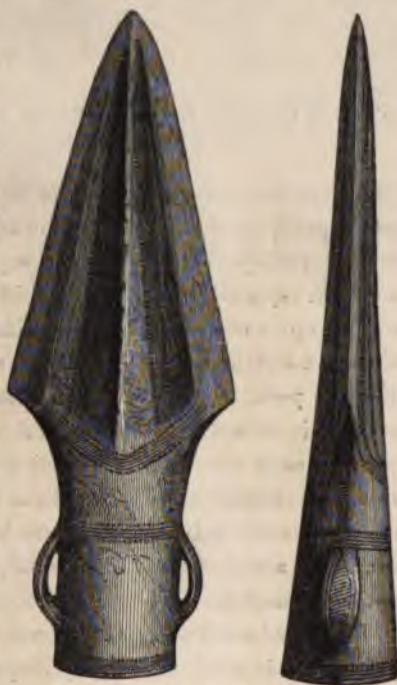


Fig. 9. Bronze Spear-head found at Dean Water, Forfarshire (5½ inches in length).

interment has occurred in Scotland. Speaking of Great Britain and Ireland, Mr Evans remarks "that bronze spear-heads are not only almost if not quite absent from our barrows, but the skill involved in producing implements so thin and so truly cored could only have been acquired after long practice in casting."¹

¹ *The Ancient Bronze Implements, Weapons, and Ornaments of Great Britain and Ireland.* By John Evans, D.C.L., page 342.

They are indeed singularly graceful and skilfully formed weapons. Spear-heads of bronze are found all over Europe, but not even in Italy and Greece do they exhibit finer forms or better workmanship than is exhibited by many of the British examples.

V.

ON THE GRATED IRON DOORS OF SCOTTISH CASTLES AND TOWERS.

By DAVID CHRISTISON, M.D., F.S.A. Scot.

Antiquarians have paid little or no attention to Scottish mediæval iron work, partly no doubt because the relics of it are few and scattered, but mainly perhaps because of the superior attractions offered by other subjects, especially those of a prehistoric nature, the study of which has opened up so wide a field for scientific research and speculation. Nevertheless, a certain interest attaches to antiquities of every kind, and when they are peculiarly liable to destruction or decay, as is the case with iron articles, it cannot be an ungrateful task for a Society such as this to preserve some record of them, and thus, perchance, by means of descriptions and engravings, to rescue them from the oblivion with which they are threatened. I have therefore been encouraged to investigate one branch of a neglected subject, which, if thoroughly examined, may turn out to be more extensive than is generally believed.

The cross-barred doors of hammered iron, to the description of which this paper is confined, have perhaps been more fortunate than other ancient articles, composed of the same metal, in escaping the rust of time and neglect, or the more fatal assaults of utilitarianism,—possibly because, long after they ceased to be required for the purpose for which they were originally constructed, they continued to be of some use in barring the entrance to inhabited castles, or to fulfil the humbler office of excluding cattle and other intruders from crumbling ruins. At all events, the number of these iron doors still remaining must be considerable, as from information given by a few friends, and inquiries made in some likely quarters, I am enabled to give a list of twenty-four, which

are to be found in the following counties, castles, and towers, or other localities :—

Peeblesshire, Barns; *Dumfriesshire*, Isle, Comlongan, Drumlanrig (3); *Ayrshire*, Dunlop; *Berwickshire*, Gordon; *East Lothian*, Lennoxlove; *Mid-Lothian*, Crown Room in Edinburgh Castle, Haddo's Hole (now in the Museum); *West Lothian*, Dundas; *Fifeshire*, Pitfirrane, Fordell; *Forfarshire*, Glamis; *Aberdeenshire*, Drum, Crathes, Fyvie, Craig; *Perthshire*, Castle Menzies, Doune (now at Darnick Tower, Roxburghshire); *Argyleshire*, Barcaldine, Moy.

No doubt others exist of which I have not heard, but this list is extensive enough to show that these iron doors were not confined to any one district of Scotland, as examples remain to this day in thirteen counties, Lowland and Highland, from the borders as far north as Morayshire. Indeed, there can be little doubt that they were largely used for the defence of even the more insignificant class of fortified houses in Scotland. Thus, Robert Chambers, in his *Picture of Scotland*, mentions that no less than ten fortresses in the parish of Broughton alone were furnished with them. The author was not a man who was likely to make such a statement without being well satisfied of its accuracy, but unfortunately the only evidence bearing on the subject in the text is as follows :—"One of these gates was preserved in the parish for a long time as a piece of antiquity, and had been seen by several people alive thirty years ago" (that is to say, about 1793). Indubitable proof, however, alike of the number of these iron doors on the borders, and of their strength, is to be found in a decree of the Scottish Privy Council, fulminated against them in 1606, entitled "Irone yettis in the Bordouris to be removit and turnit in plew irinis." This Act is published in full in the third vol. of the *Archæologia Scotica*. The preamble complains that from the "strenth" of these iron yetts, "it is very hard and defficle for His Majesties Commissionaires or garisoun to wyn and recover the said houssis and to apprehend the lymmairis therein." The Lords of the Secret Council therefore ordain that the "haill of them should be removit and turned to plew ironis or other necessar work." This decree only applied

to "houssis and strenthis pertening to any persone or personis of broken and disordourit clannis, and to common people not being answerable baronis." Thus we see that these iron yetts were not confined to the castles of the great, but were apparently in universal use in all kinds of fortified houses. Whether this order had any effect is unknown. Probably not much. The exception from its application of the more powerful men, probably as great "lymmairis" as the others, seems to indicate the weakness of the central power, whose decrees, as William Chambers shows in his *History of Peeblesshire*, were generally utterly ineffectual in that county when directed against the strong, and of doubtful efficacy even against the weak.

What manner of "irone yettis" then were these, which played so important a part in the defence of Scottish fortresses? In answer to this question, I shall first show the principles of construction and arrangement which are common to them all, and afterwards describe particular examples, giving more minute details, and showing the mode in which they were combined with other defensive means for the protection of the entrances to fortresses in ancient times.

It is a remarkable fact that from north to south the principle of construction of these iron *yett*s¹ is identical, the essential feature being a mutual and alternate penetration of the bars, the alternations taking place not at every intersection of the bars, but in groups according to a uniform system. Thus if we take the Barns yett (fig. 1), we find that it consists of four perpendicular and seven horizontal bars, exclusive of the outer frame. Following out the two perpendiculars on the hinge side, it will be seen that they penetrate the four upper horizontals, and are themselves pierced by the three lower horizontals; the two perpendiculars furthest from the hinges, on the contrary, are pierced by the four upper horizontals, and pierce the three lower horizontals. This principle strictly applies to every one of these yetts, and the result is that they are all divisible into four rectangular parts, of which the upper right

¹ For convenience, I shall generally use the word *yett*, to signify the iron cross barred gates of which I am treating.

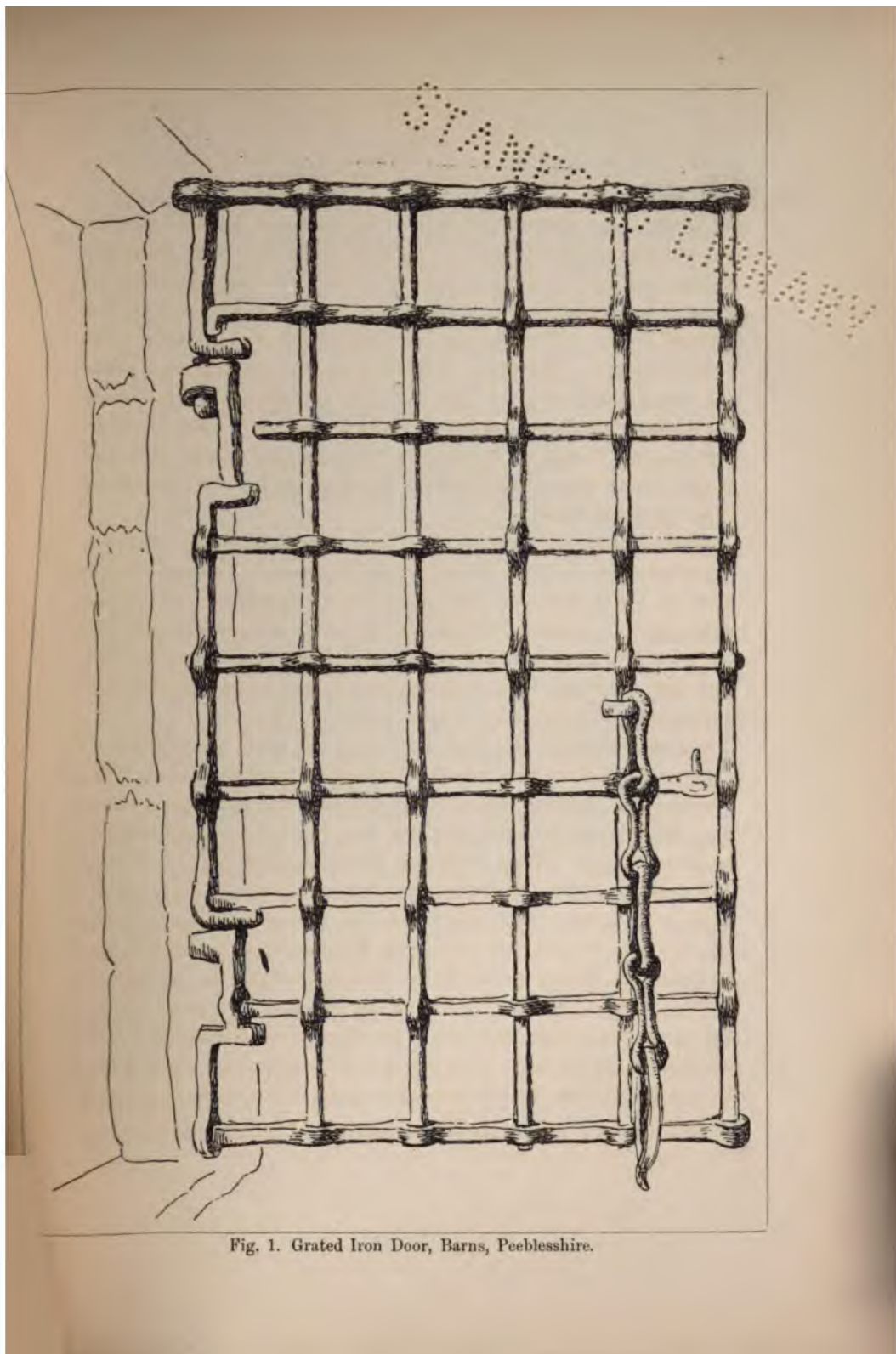


Fig. 1. Grated Iron Door, Barns, Peeblesshire.

and lower left are identical in construction, while the upper left agrees with the lower right. As the bars generally occur in odd numbers, the divisions diagonally opposite to each other, although alike in construction, do not usually agree in area, but the sum of their areas is always equal to that of the other two. All the bars pierce the outer framework, which therefore does not participate in the system of alternate penetration.

The hinges and fastenings are not all of one pattern, but in the great majority of cases they have the following characteristics. The knuckles of the hinges form nearly a circle, and are welded on to the outer margin of the frame. They are not furnished with bands, and are never placed opposite to a horizontal bar. The horizontal limb of the crook is generally almost buried in the masonry, and the whole hinge is sometimes received in a recess of the wall. The yetts were fastened by bolts acting on a principle in common use in modern field gates. They ran into a hole in the wall, and were fixed by a hasp closing over a staple and fastened, presumably, by a padlock. In the Crown Room of Edinburgh Castle a padlock of antique design still remains beside its grate, but I do not know any other surviving example. In some instances, as at Isle, Glamis, and Comlongan, the bolt is cylindrical throughout: in others, as at Edinburgh Castle, Fyvie, and Drumlanrig, it is squared in the central part of its length.

Probably in all cases there was originally a wooden door, studded with large broad-headed nails, outside the iron yett, and generally separated from it by only a few inches. Very few of these wooden doors remain, but the presence of a rebate in the wall, and of hinges, frequently indicate where they had been placed formerly. Holes in the walls prove that in general a bar was stretched across behind either the iron or wooden door. The size of these holes indicates that in some cases the bar must have been of wood, in others more probably it was of iron. As far as I know, only one of these bars, an iron one, still survives.

Such being the general characteristics of the iron yetts, I now proceed to notice them individually; particularly the most interesting examples, of which I have been able to obtain descriptions and drawings.

Barns Tower, Peeblesshire.—The iron yett at Barns was the first to attract my attention, and as it is perhaps the most ancient of them all, I shall not only allow it the first place, but describe briefly the tower in which it still swings on its hinges. This little tower is figured in William Chambers' *History of Peeblesshire*; but by the kindness of Mr Montgomery Burnett, a descendant of the ancient family which possessed



Fig. 2. Barns Tower, Peeblesshire.

Barns from a very early period almost to our own day, I am enabled to give another view of it (fig. 2) taken from a photograph, showing the iron grated door in its present position. The building only measures 29 feet by 20 externally, and has no natural strength of position, being situated on a low mound in the comparatively open and level district where the Manor joins the Tweed. The date of its construction is

doubtful. The figures 1498 are rudely cut in the lintel over the door; but from their style, and the improbability of so old a date being found upon a Scottish tower, it is likely either that they are spurious, or, as William Chambers has suggested, that they were inscribed about a century later, to indicate the age of the building, by William Burnett,—surnamed *the Howlet*, from his skill in conducting midnight expeditions,—whose initials, with those of Margaret Stewart his wife, are carved above one of the upper windows. A weird-looking grey mantle of dead interlaced ivy branches and twigs, killed by the frost of 1880, now almost entirely covers the building, and conceals any external details of interest that may remain. The walls are in good preservation, the roof is modern, and the interior much altered, having been fitted up in recent times to accommodate old servants and retainers of the family.

The entrance is near the north end of the western face. Directly opposite on entering, at the distance of a few feet, is the door of the vaulted basement chamber; and on the left, parallel with the outer wall, is the stone staircase, 2 feet 6 inches wide, which, reaching the north wall in a few steps, turns at a right angle along it, and, by a straight ascent of about a dozen steps, reaches the first floor. This is paved with stone. Strong old beams, resting on stone corbels, support the flimsy modern floor of the room above. This and the upper chamber do not retain any details of interest.

The narrowest part of the doorway is recessed to a depth of a few inches from the outside, and measures 5 feet 7 inches by 2 feet 11 inches. The iron door is fitted into this recess, and being 3 inches wider than the doorway, completely blocks it, and occupies nearly the whole width of the recess. In this position it necessarily opens outwards. A few inches further in there is a modern wooden door in a rebate behind the narrow part of the doorway, and close behind it are rectangular openings in the wall for receiving a strengthening bar; one of these openings runs upwards of 3 feet into the wall, to contain the bar when not in use. The bar, as in almost all similar instances, is not preserved.

I have described the present position of the iron door, but it is possible that it was originally situated further back; not only because the hinges,

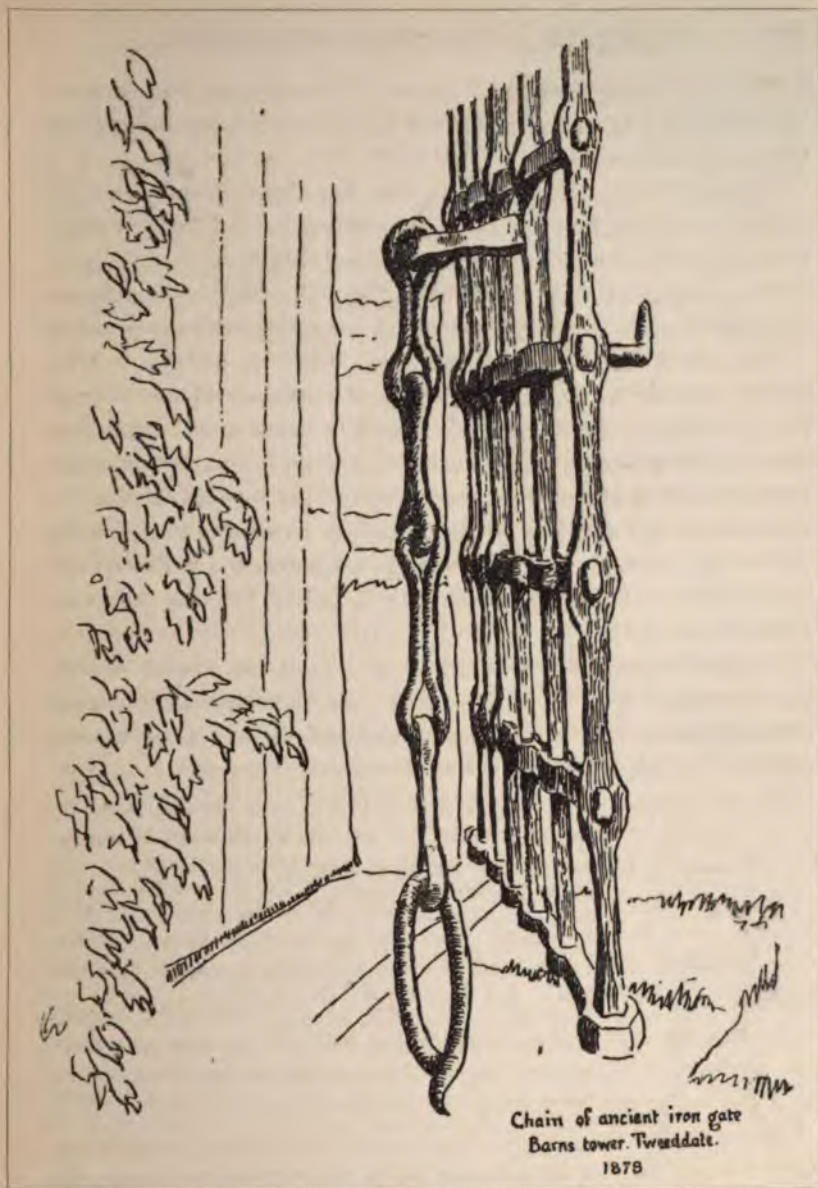


Fig. 3.

as placed at present, are quite exposed, but because all the evidence in other cases goes to prove that it was the practice to place the iron door behind the wooden one.

A general description of the iron door has already been given. The dimensions of the bars are $1\frac{1}{8}$ inch in breadth and $\frac{5}{8}$ inch in depth, widening to 2 inches at the *eyes* or piercings in the bars.

The arrangement of the hinges is peculiar. They are placed in recesses of the frame, in the somewhat complicated manner shown in the engraving.

The mode of fastening is also peculiar. It is done not by a bolt, but simply, as shown in the drawing, by a ponderous chain $2\frac{1}{2}$ feet in length (fig. 3), consisting of four spectacle-shaped links and a final oblong loop. This chain is suspended from a staple which projects inwards from a little below the middle of the perpendicular bar furthest from the hinges. To close the gate the final loop of the chain was fastened to a staple in the wall of the staircase. It is not easy to conjecture the use of a crook which projects outwards from the fifth horizontal bar, close to the end furthest from the hinges.

In three respects—the recessing of the hinges, the absence of bolts, and the fastening by means of a chain—the Barns door differs from all others of which I have drawings or descriptions, and I am inclined, therefore, to believe that it is the most ancient of them all.¹

¹ In the upper chamber of Barns there is preserved, besides the two stones of a quern, a curious iron pot (fig. 4), supported by a tripod, attached to a couple of rings which girdle the pot. One leg of the tripod is missing. The pot is of the form represented here, and measures 18 inches in length by $8\frac{1}{2}$ in breadth at the top and 4 at the bottom, which is rounded, and pierced in the middle by a square hole, about $\frac{3}{4}$ of an inch in diameter. An iron cylinder, about 4 inches long, pierced throughout its length by a similar hole, fits into the bottom. Near the top of the outer surface of the pot are sunk the letter N and figures 4867 with 0-1-6 below them. From their style I am assured by Messrs Sim and Carfrae, that they cannot be older than the beginning of last century. All knowledge of the purpose of this vessel seems to be lost. It is said that many other iron relics were given, some years ago, to a passing tinker.

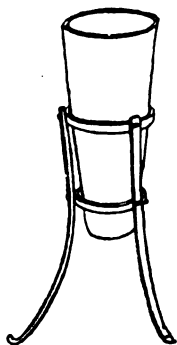


Fig. 4.

Isle, Dumfriesshire.—This little tower, smaller even than Barns, as it measures externally only 23 feet by 20, is one of the few in Scotland which has in a great degree escaped destruction alike from violence in warlike ages, and from the more fatal decay produced by neglect or spoliation in recent times. The walls and two flanking turrets are in good preservation, the modern slated roof appears to be constructed on the old lines, and the stone roof of the basement and oak beams of the roof of the first floor still remain. Although incorporated with the

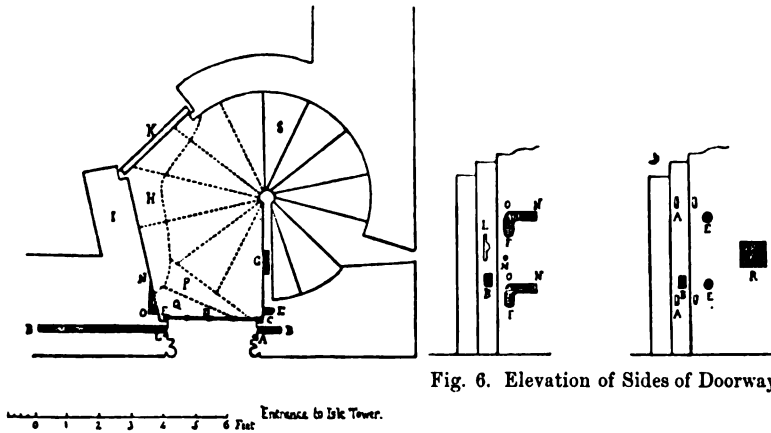


Fig. 5. Ground Plan.

Fig. 6. Elevation of Sides of Doorway.

modern house, and fitted up for residence, the tower retains ancient details of interest, which are carefully preserved by Mr Gillon Ferguson, the representative of the family, whose arms, with the date 1587, are carved on a stone above the entrance. To his kindness, and the great trouble he took to make sketches and measurements for me, I am indebted for the plan and elevation here given (figs. 5 and 6). These are of peculiar value, as the system of defence in this doorway was either more elaborate originally, or has been better preserved than in any other example with which I am acquainted.

The wooden door has disappeared, but hinges and a staple, marked

AA and L in the ground plan and elevation, remain to show that it was swung in the outer rebate in front of the iron door. Immediately behind the position of the wooden door are the holes BB, pierced in the wall, to receive the strengthening bar which stretched from side to side when in use, and at other times was run into the deeper hole on the left, to be out of the way. Next comes the iron door D, fastened by a strong bolt running into the hole N. Close behind it, on the hinge side of the wall, are the holes EE, one about 21 inches above the other. These were evidently intended to receive the ends of two bars, which were placed in position by slipping their other ends along the slots NO, and then dropping them down to FF. When in position these bars were not horizontal, the ends at EE being 5 inches higher than at FF. There are no tunnels to receive these bars, probably because, unlike the bar behind the wooden door, they were not used in ordinary times, but only when an attack was apprehended.

Thus the defences of the entrance comprised—first, a wooden door, with its hinges protected by a rebate; secondly, a bar stretching across from wall to wall; thirdly, in an inner rebate, the iron grate; and lastly, two bars, stretched behind it from wall to wall—all four lines of defence resting, or almost resting, on each other. Probably this was the full arrangement in Scottish fortified doorways; but except in this instance it was rarely, if ever, complete. In many cases apparently only one of the doors had been strengthened by a bar; in others no bar holes now remain, perhaps owing to alterations made in the doorways in comparatively modern times.

A full description of this interesting little tower would be beyond the scope of this paper; but, in connection with the doorway, the plan shows the little vestibule beyond, bounded by the grated door D, the wall I, dungeon door K, and the foot of the circular stair. The roof of this vestibule is formed by the upper half of the first circle of the stair, the steps of which it is composed being shown by dotted lines. To support the stair above, a coarse cornice or buttress H, is thrown out from the upper part of the wall I, aided by subsidiary step-like buttresses R and

Q, which run from it to rest on the lintel of the door. In the staircase above the door, and about 7 or 8 feet from the ground, there is a loop-hole specially intended for the defence of the entrance. It is not shown in the plan.

In addition to these particulars, I must be content with mentioning that one of several small square cupboards in the substance of the walls seems specially intended for the concealment of valuables. At first sight it appears not to differ from the others, but the hand can be passed through a little hole in its roof into a similar space above, and it is obvious that if valuables were placed there, and the hole closed with a well-fitted stone, it would require no ordinary search to find them.

The iron door has the usual arrangement of the bars. The hinges are almost buried in the wall, and the top of the door is so near the roof of the doorway that it could not possibly be lifted off its hinges.

There is only one bolt, of the kind which is cylindrical throughout. Its total length is 19 inches. It slides through two circular staples $2\frac{3}{4}$ inches in diameter, one welded into the frame, and the other into the next perpendicular bar. The hasp passes through a slightly expanded part of the bolt, to which it is welded, an inch nearer the outer than the inner end ; it is 10 inches long, and closes on a staple, which projects 4 inches from a horizontal bar, and is 3 inches wide.

Comlongan Castle, Dumfriesshire.—This ancient seat of the Murrays of Cockpool, although little is known of its history, must have been an important border fortress. It is a large and lofty square block, which still produces an impressive effect from its stern and massive simplicity. Few Scottish castles of the fifteenth century—for such from its style appears to be the date of its erection—are so well preserved. The wood-work indeed is gone, but the masonry is almost perfect, from the vaulted basement to the parapets, chimneys, and other structures on the top. Comlongan is also remarkable among Scottish castles in possessing machicolations, which, although in some places concealed by modern roofing, appear to run along the whole parapet on all sides. Other

interesting details survive, such as the aperture for the admission of air to the dungeon, a small chamber adjoining the large stone-roofed basement, and entered from a hole in the floor of a passage above. This air

aperture turns twice at a right angle before reaching the outside, so as to exclude light, and prevent the passing of anything from without to a captive within.

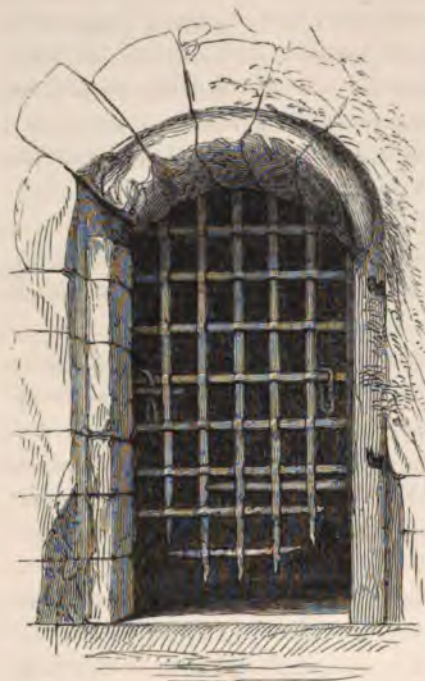


Fig. 7. Grated Iron Door, Comlongan Castle.

I am indebted to Mr Hutton, factor on the estate, not only for showing me the points of interest in the castle, but for measurements and detailed descriptions of the fine iron grate, which still hangs in position in the doorway. The accompanying view of it (fig. 7) is from a sketch taken by myself. This yett is of considerable size, measuring 7 feet 6 inches by 4 feet $1\frac{1}{2}$ inch. The upper part, which is round-headed, is concealed in the sketch by the corresponding arch of the doorway. The bars are of unusual strength, averaging $1\frac{3}{4}$ inch in breadth and 1 inch to $1\frac{3}{4}$ inch in

depth, expanding to $2\frac{3}{4}$ inches at the *eyes*. Within the frame there are five perpendicular and eight horizontal bars. The lower part of the door is much worn away, and the original lower hinge has been replaced by another, also apparently of great age, furnished with a band, which is shown in the drawing. This is the only one of these iron grated doors in which I have met with a hinge-band, and in this instance it is evi-

dently not original. A couple of iron links or bracelets hang one at each end of the fourth horizontal bar, counting from the top, as shown in the drawing. So far as I know they are the only examples of the kind remaining in Scotland. They are of a squarish form, but with the angles slightly rounded, and measure 8 inches in length by 5 inches in breadth at the widest part, contracting to 4 inches at about a third of the distance from one end. Their girth, which is not round but rectangular in form, measures 1 inch. As they are on a level with the holes in the wall for the strengthening bar immediately behind the door, there can be little doubt they were intended to receive the bar, and thus bind it to the grated door.

The details of the jambs are much obscured by the wear of centuries, but it does not seem possible that there could have been a wooden door in the usual place, because, although there are two rebates in the wall on the bolt-side of the iron door, there is only one on the hinge side, and the hinges of the iron door do not leave space for other hinges in the rebate. But in front of the rebate, as shown in the sketch, two hinges, the lower of which is much worn away, probably indicate the place where a wooden door formerly hung, although the situation is unusual and exposed. The door is closed by a single bolt, cylindrical throughout, $16\frac{1}{2}$ inches in length, with a hasp 9 inches long. The original hinge is of the ordinary type. No loopholes specially protect the doorway, but it could be effectually defended from the machicolations on the rampart at the top of the castle.

Drumlanrig Castle, Dunfriesshire, has no less than three iron yetts. On the ground floor there is a narrow passage running parallel with the front of the castle, and terminating at each end by turning forward into projecting wings. Each of these ends is protected by an old oaken door, and a few inches behind it by an iron yett, measuring 6 feet 8 inches by 4 feet 2 inches, constructed in the usual way. The main entrance, on the first floor, is likewise defended by a wooden door, which however is modern,—occupying no doubt the place of an older one in the first rebate,—and, a few inches behind it, by an iron yett in the inner

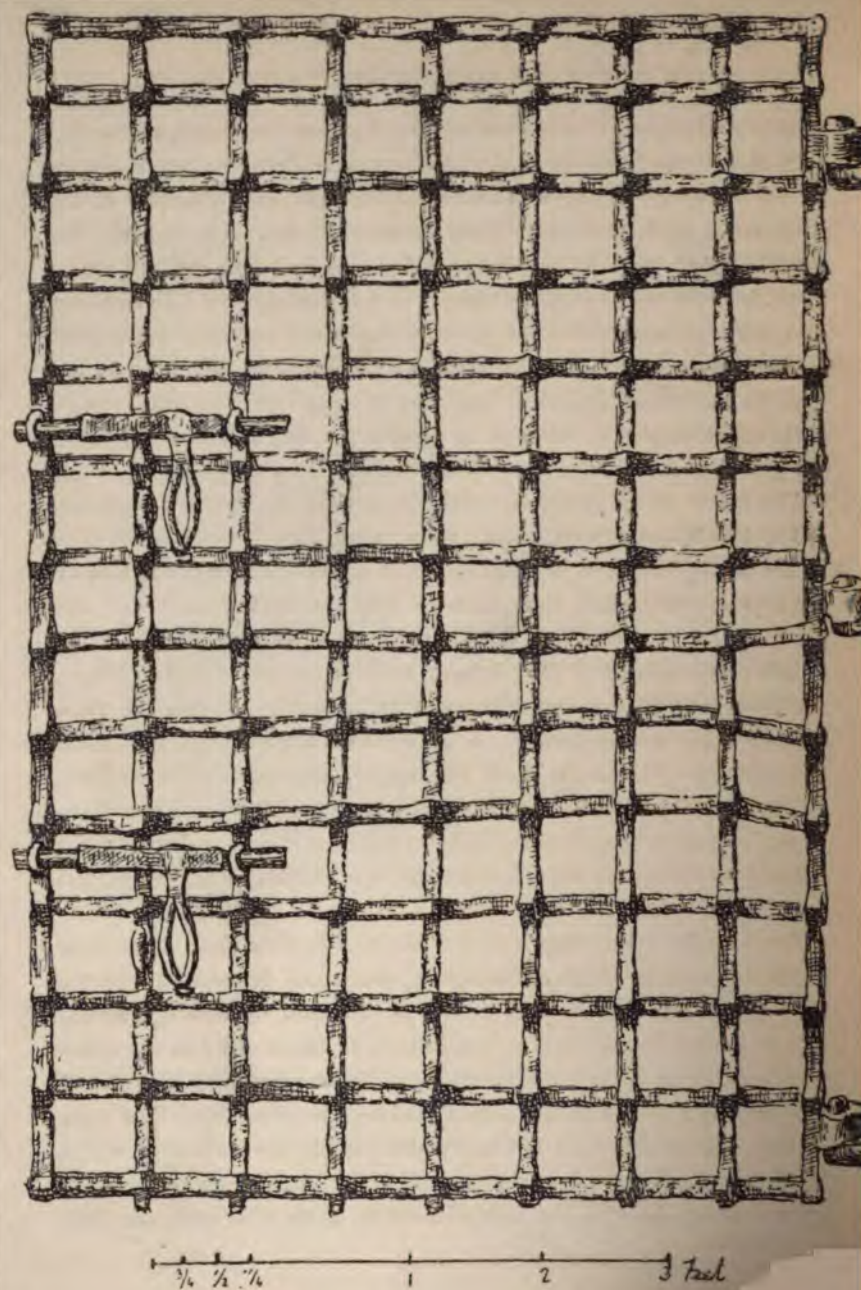


Fig. 8. Grated Iron Door, Drumlanrig Castle.

rebate. There are no traces of holes in the wall for strengthening bars behind either the large or small doors and yetts.

Mr Dickson, chamberlain to the Duke of Buccleuch, procured for me good plans of the three yetts made by James Letham, a workman at the castle. I give here a representation of the large one (fig. 8), from sketches made by myself, aided by the plan. The irregularity in the placing of the bars, which characterises all these Scottish yetts, is nowhere more manifest than in this instance. The upper horizontal bar is much nearer the top of the frame than it should be, if equality of arrangement were aimed at; and marked irregularities occur in the three bars below the middle hinge. The uppermost descends in the first space, and is slightly curved in the rest of its course. The two below it ascend at a considerable angle in their first spaces, and are by no means horizontal afterwards.

The great iron door of Drumlanrig is a fine specimen of hammered iron work, and is the largest of my examples. It measures 9 feet 1 inch by 6 feet $1\frac{1}{2}$ inch, and consists of seven upright and twelve horizontal bars, which vary somewhat in dimensions, the largest approaching $1\frac{1}{2}$ inch by 1 inch, expanding to nearly 3 inches at the eyes. The three hinges, of which the crooks are $2\frac{1}{4}$ inches in diameter, are contained in recesses in the wall. The two bolts are of the type which is rectangular in the middle third. Fig. 9 gives a half-side view of one of them, with its hasp and staples.



Fig. 9.

Great as the size of this yett is at present, I think there can be little doubt that it has suffered mutilation below, for the following reasons:—

1. The perpendicular bars project in an unfinished manner below the present lowest bar, as if they had been roughly cut off.
2. The lower bar shares in the system of alternate piercing, which never happens in an undoubtedly perfect yett.
3. The horizontal bars in the lower alternating division bear to those in the upper division the proportion of five to seven, but in all perfect yetts that proportion is such that one division is either equal to the other, or only exceeds it by one. There can be little

doubt, therefore, that the present lowest bar was originally a contained bar, and that the lower bar of the frame is missing. Perhaps this mutilation took place to suit some alteration in the doorway, in which process holes in the wall for bars may also have disappeared.

Dunlop, Ayrshire.—The history of an iron yett which lies in a wood here is unknown. It is much decayed, and the upper bar is entirely gone. It measures 5 feet 11 inches by 3 feet 10 inches, and has five upright and nine horizontal bars. It has three hinges, and of two bolts only one remains.

Gordon, Berwickshire.—In this fortress, which bears the date 1581, there is an iron yett, 6 feet $1\frac{1}{2}$ inch in height and 4 feet 2 inches in width, containing five upright and eight horizontal bars. The arrangement for the strengthening bar, which stretched behind it, is peculiar.

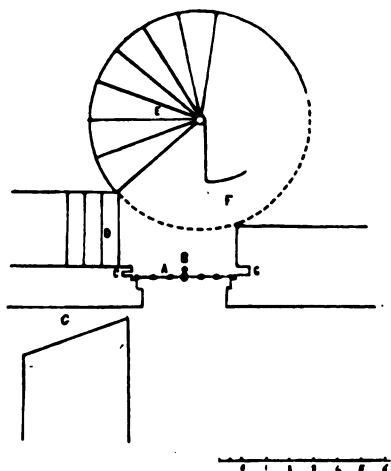


Fig. 10.

The bar is gone, but it evidently pivoted round an iron pin (B in plan, fig. 10) which still remains, and which pierces the middle of the central perpendicular bar. This bar is a little stouter than its fellows throughout, and at this particular part is further strengthened by expanding in all directions into a rounded form. The pin is $6\frac{1}{2}$ inches long, has a head $1\frac{1}{2}$ inch in diameter on its outer end, and a nut on its inner end, by means of which the door could be screwed tight to the door. The bar were a

dicular slots, of unequal width, CC, set the reverse in the jambs of the doorway. The slot on the right inches from the ground, gradually penetrates the wall as

of 6 inches, at a height from the ground of 3 feet 2 inches. The slot on the left, entering 4 feet 9 inches from the ground, penetrates the wall *downwards* to a depth of 5 inches, ending at a height of 3 feet 6 inches from the ground. Thus when fairly in position one end of the bar would be 4 inches higher than the other. There is no trace of this peculiar arrangement in connection with any of the other yetts.

The position of the yett is the usual one, in a rebate a few inches in rear of a rebate for a wooden door, of which the hinges still remain. The doorway is situated close to a re-entering angle of the house, and could be defended by missiles or spear thrusts from a flanking loophole G, splayed inwards on one side only, 2 feet in height and only 2 feet from the ground. The rough ground plan, prepared from measurements kindly taken for me by Mr Stobbs, the minister of the parish, also shows the stairs D to the kitchen, and the entrance F to a chamber under the circular staircase.

Lennoxlove, East Lothian.—Lennoxlove “originally consisted of a square tower or fortalice eighty feet high, built by one of the powerful family of Gifford, and in ancient times must have been a place of considerable strength, the walls being throughout ten to thirteen feet thick.” “A ponderous grated door at what appears to have been the original entrance of the tower remains, to add to the proofs of the strength of the fortalice.”—*Mansions of the Lothians*.

Edinburgh Castle.—The room containing the Scottish Regalia is still fittingly defended by an ancient iron grated door of the national type. It is a strong and well-preserved specimen, measuring 6 feet 3 inches by 3 feet 3½ inches, and consists of four perpendicular and eight horizontal bars within the frame. The bars are unusually thick for a door of its size. They vary slightly in dimensions, but to no greater degree than the eighth of an inch, their average width being very nearly 1½ inch and the depth 1 inch, expanding to fully 2½ at the “eyes.” In the frame these expansions are exceptional, being only present on the inner or bolt side.

The hinges, two in number, are of the usual form.

The door is closed by a single bolt, of which, as it is a fine example, I

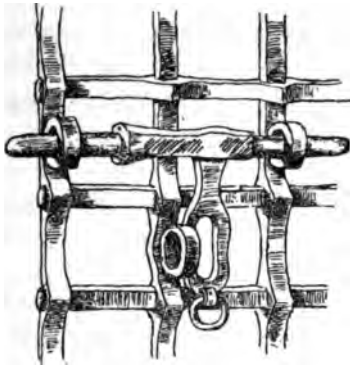


Fig. 11.

which the hasp is fastened, are nearly circular in form, without visible necks, but they pass through slightly expanded portions of the bars to which they are welded.

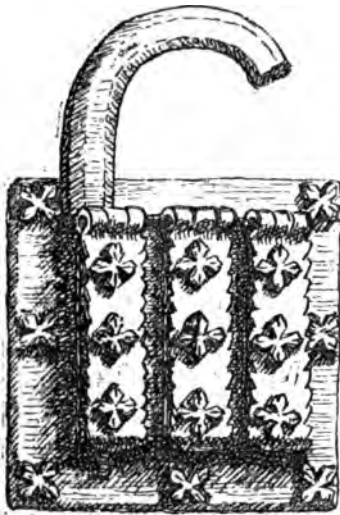


Fig. 12.

piece below the other. The curved clasp is octagonal ; about a third

give a drawing (fig. 11) taken by Miss Barbara Peddie. The bolt is placed midway between the top and bottom of the door. It belongs to the type which is rectangular in the middle and cylindrical at both ends. The hasp is placed much nearer the inner than the outer end of the central division. Attached to the curled-up extremity of the hasp there is an iron ring, evidently to aid in moving it. The two staples through which the bolt slides, and the staple on

Miss Peddie has also drawn the padlock (fig. 12), perhaps the only one which still remains beside its grated door, although no longer used. It is made of iron, and measures $7\frac{1}{2}$ inches square in front. The central portion, an inch within the outer margin, is raised one inch. The central ornamental button turns and allows the middle band to be raised, displaying the keyhole within. A small piece of iron projects from the interior, below one of the lateral bands, and there is a hole for a similar

of it is gone, having doubtless been broken off when the crown room was forced in 1794. This operation was necessary, as it was not known where the keys had been deposited when the crown room was shut up eighty-seven years previously.

Antiquarian Museum, Edinburgh.—The only specimen of an iron yett in our Museum is the door of "Haddo's Hole," the prison formerly so strangely placed in St Giles' Church. It measures 5 feet 3 inches by 3 feet, and has three upright and seven horizontal bars, which are remarkable for the bevelled external edges of their eyes. The marks of two bolts remain, and a modern chain of six ordinary links hangs from one of the bars.

Dundas Castle, West Lothian.—From observations taken by my brother, Mr Christison, the iron yett here measures 7 feet 3 inches by 4 feet 7 inches, has six upright and ten horizontal bars, and is slightly arched at the top. It has only one hinge, situated about 20 inches from the top. There is a hole in the wall opposite the usual position for a lower hinge, but it is not used, and the bar of the frame is prolonged with a bend so as to pivot on the floor perpendicularly below the hinge. There are two cylindrical bolts, with hasps of a peculiar form. They have a lop-sided appearance, as the holes for the staples are considerably to one side of the middle line. This was necessary to enable the hasps to close on the staples, as the latter are nearly underneath the bolt-staples. The lower hasp-staple, which is broken off, was fixed on the portion of a bar which fits close alongside of the frame bar, as shown in the sketch (fig. 13). Probably the object of this arrangement was to bring the fastenings well within the shelter of the rebate. As the yett closes so as to be parallel with the flat surface of a wall, the bolts cannot run into the wall; but there are apparently the remains of a provision for receiving them in a suitable iron projection, as in each case there is a pair of holes in the wall about $2\frac{1}{2}$ inches square and a foot apart, one above, the other below the level of the bolt. Some of these holes still contain remnants of iron.

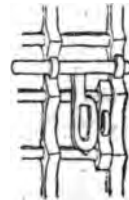


Fig. 13.

The position of the Dundas yett is unique among my examples. The rough ground plan (fig. 14) shows that, when shut, it is at right angles on the hinge side to a wall ten feet in thickness, while on the bolt side it rests, as already explained, on the flat surface of a wall. This wall is only about a foot thick, and forms the outer side of the commence-

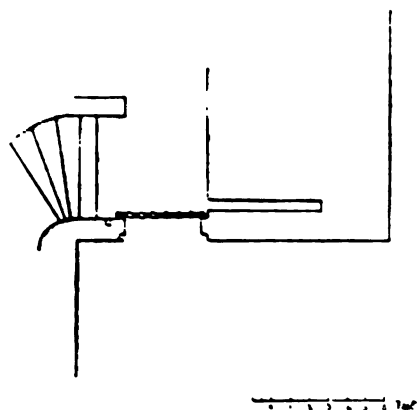


Fig. 14.

ment of the stair, which is on the right hand of the entrance. This stair has no door proper to itself. A few feet within the iron yett and parallel with it, a modern wooden door gives access to the vaulted basement chamber. But there is no reliable sign of a wooden door having been placed in front of the iron yett. Immediately behind the latter, in the ten foot wall, there is a tunnel 5 inches square and 6 feet deep for a strengthening bar; but

there are no remains of any provision for fixing such a bar on the other side, where, from what we have already said, it is evidently impossible that it could have been run into the wall. There can be little doubt from these peculiarities, that the doorway must have undergone great alterations, and of this we have further proof in the fact that the arch of the doorway in no way conforms to the arch of the yett.

Pittfirrane House, Fifeshire.—This handsome grate, measuring 6 feet 4 inches by 4 feet 7 inches, and comprising five upright and eight horizontal bars, with two hinges and two bolts of the ordinary type, now stands between pillars in the park. It was placed there for preservation by Arthur Halkett, who has given me the following interesting account of it: "The iron gate formerly hung at the entrance to a large apartment on the ground floor of Pittfirrane House; the

which it was hung, and the holes in the stones for receiving the massive bolts, still remain. I fancy this large dungeon, as it was once, with an earthen floor and only a small orifice for light, was used to drive the cattle into at night for safety. Before an addition was made to the house, about 200 years ago, the entrance to the apartment was outside the house; now it is inside, opening on a corridor. I had been told of the existence of this gate by an old servant of the family, and finally discovered it, used as the covering of an old disused well in the park, with some boards over it, and covered with weeds. Being anxious to preserve so interesting a relic, I put it in its present position." Sir Arthur also informs me that the iron door was hung quite at the outside of the entrance to the vaulted basement, and that there is no sign of a door having been outside it. The wall is 9 feet 6 inches thick, and he thinks that there was probably another door at the inner end of the entrance, but there was no sign of such in

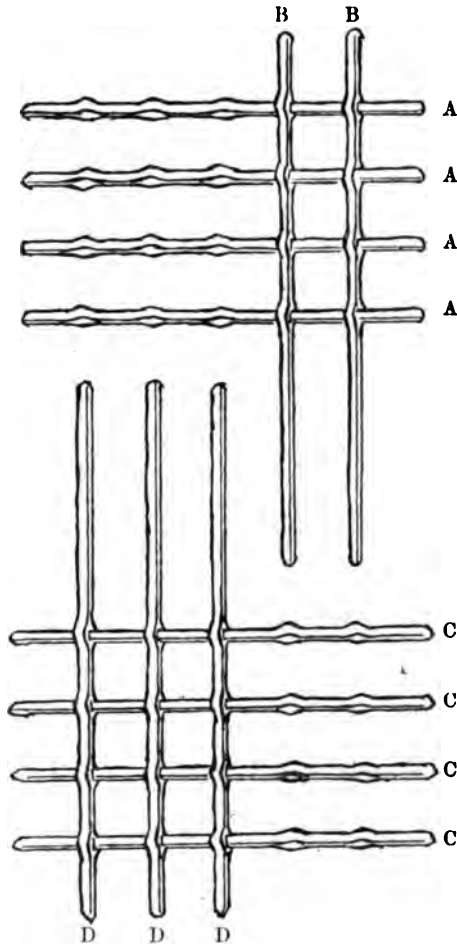


Fig. 15.

his time, and the entrance has undergone many alterations. To Sir Arthur Halkett I am also indebted for an explanation of the way in which these iron doors were put together, which has been a puzzle to many people. Let us take the Pitfirrane gate as an example (fig. 15). First let the four upper horizontals AAAA be passed through the two right hand perpendiculars BB, into the position they are ultimately to hold with regard to them. Then pass the four lower horizontals CCCC, in the same manner through the three left hand perpendiculars DDD. Then place the two half gates thus formed opposite each other, and it is evident that they can be driven into position. If the perpendiculars BB are driven through the holes in CCCC, the perpendicular DDD will at the same time pass through the holes in AAAA, or *vice versa*. The framework, which does not share in the system of alternation, can then be hammered on to the ends of the bars on all sides.

Fordell, Fifeshire.—From information obtained for me by Mr James Turnbull, St Colme House, I learn that the yett at Fordell is in good preservation, and that the bars, hinges, and bolt are constructed on the usual principles. One unusual detail, however, is the insertion of small arched iron struts in the angles of the frame to strengthen the corners; and another, that the bolt is prevented by collars from moving too far either way. The dimensions of the yett are 6 feet by 4 feet 2 inches, and it has four perpendicular and nine horizontal bars. There is a wooden door 6 inches in front of it, and there are holes in the wall for a strengthening bar behind the wooden door.

Glamis Castle, Forfarshire.—In this splendid edifice the old iron grate is preserved in good condition. From plans and measurements made by Mr Stevenson, the minister of the parish, I give the accompanying representation of it (fig. 16). Its height is 6 feet 8 inches and breadth 4 feet 8 inches, smaller dimensions than one might expect in the yett of so large a castle. It has six perpendicular and nine horizontal bars within the frame. Each bar, in the half which pierces other bars, measures $1\frac{1}{2}$ inch in breadth by $\frac{9}{16}$ ths of an inch in depth, but in the half which contains the eyes is $1\frac{1}{8}$ inch square in section. It has two hinges of the

ordinary type, and two bolts $14\frac{1}{2}$ inches in length, $1\frac{3}{8}$ inch in diameter,

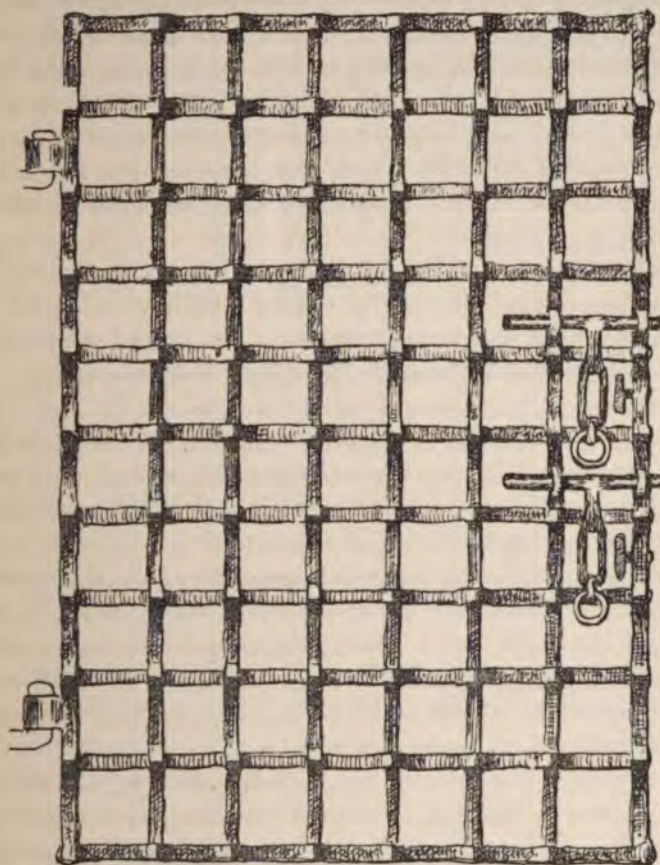


Fig. 16. Grated Iron Door, Glamis Castle.

and cylindrical in form throughout. Each hasp is a foot in length, and

has a hook at the bottom from which hangs a ring. The staple does not, as usual, spring directly forward from a bar, so as to be protected by it, but from a neck which penetrates the bar of the frame sideways, and is then directed forward. The iron door is $4\frac{1}{2}$ inches behind an oaken one, of which the wood is modern, but the iron ancient, including hinges, bars, and square-headed nails with which it is strengthened, and an iron knocker with the date 1687. Each door is protected by a rebate. A single hole in the wall is the only evidence that strengthening bars may have been in use formerly.

Drum Castle, Aberdeenshire.—I am indebted to Mrs Forbes Irvine for drawings and a description of the yett at Drum. It measures 5 feet 6 inches by 3 feet 9 inches, and consists of six upright and nine horizontal bars, besides the frame. The upright bars, however, bear distinct evidence of having been roughly broken over, where they project awkwardly above the present top of the gate (fig. 17); and from other evidence, precisely similar to that which has been adduced in the case of the Drumlanrig gate, there can be no doubt that the Drum yett has lost a horizontal bar, besides the top bar of the frame.

The hinges of the Drum yett differ entirely from all my other examples. The knuckles encircle the bar of the frame, which forms the pivot on which they turn, and is protected from friction by collars inserted between it and the knuckles. The hinge-bar is also prolonged so as to pivot on the floor. The only other example of this is at Dundas Castle. The bolt, which is $21\frac{1}{2}$ inches long and $1\frac{1}{2}$ inch in diameter, and cylindrical in form, in place of a hasp has a handle consisting of a short bar with a knob at the end, and it does not appear how the bolt was fastened.

The yett occupies the usual position, a few inches in rear of the place for a wooden door, of which the hinge-crooks still remain. There is a small rebate for the wooden door, but none for the yett, and there are no holes for bars in the wall.

The bars of the yett measure from $1\frac{1}{8}$ inch to $1\frac{1}{2}$ inch in diameter, but lumps of rust are constantly scaling off, so that they do not now retain their original thickness and strength. The same gradual loss of substance has evidently taken place in most if not all of the other yetts.

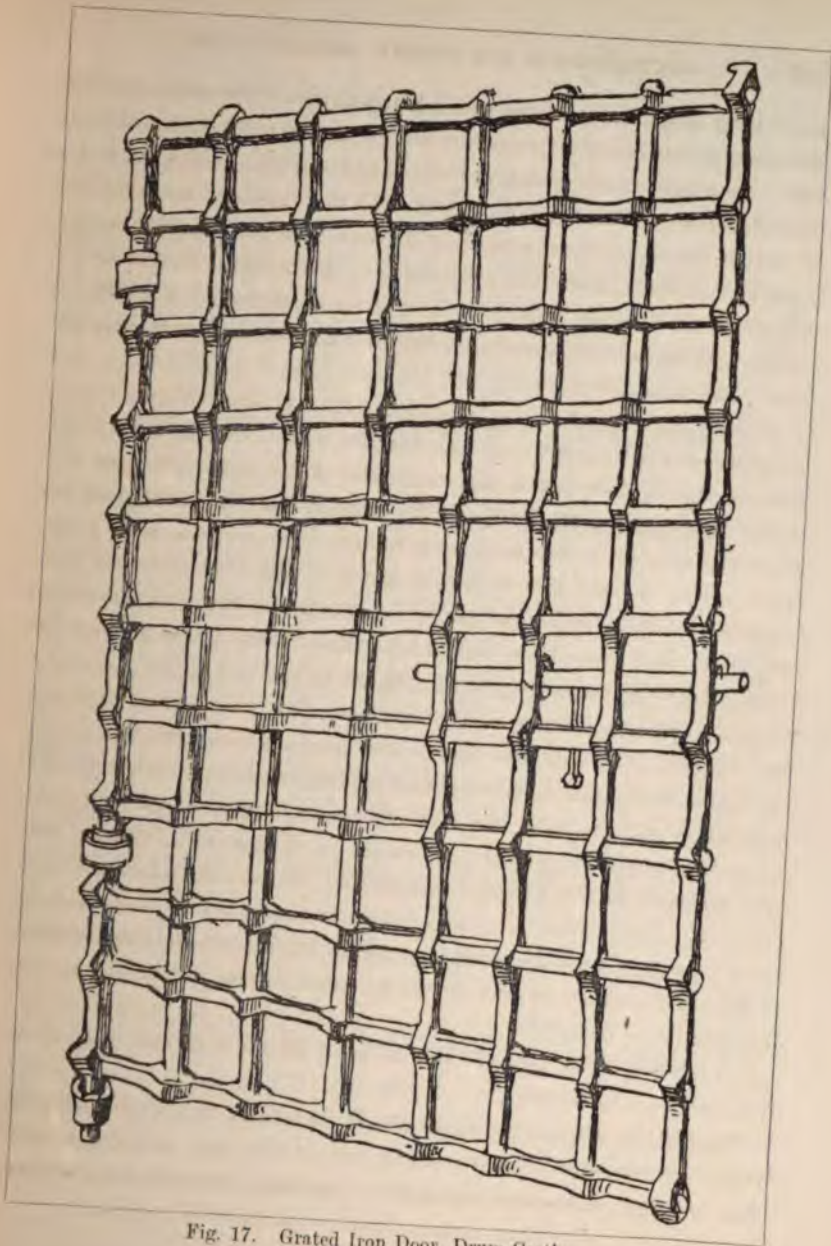


Fig. 17. Grated Iron Door, Drum Castle.

Crathes Castle, Aberdeenshire.—I am informed by Mrs Forbes Irvine, that there is a small iron yett here with four upright and eight horizontal bars, two hinges of the ordinary form, and two bolts. The latter are remarkable for the zigzag form of their hasps. They are thus fashioned to enable them to close on their staples, which are situated on the frame-bar, directly below the bolt-staples. One of these hasps is much worn, the other looks modern. This yett was originally in the usual position, behind a wooden door, but is now placed in front of it, hinged and bolted on the outside of the wall, that it may be better seen by visitors.

Fyvie Castle, Aberdeenshire.—This handsome castle, which rivals Glamis itself in dignity, has an iron yett of the first rank. My description of it is entirely derived from Dr Milne, the minister of the parish, and the illustration (fig. 18) is from an accurate drawing made by his son, Mr Leslie Milne. This elegant gate is arched at the top, and measures 9 feet in height by 5 feet $4\frac{1}{2}$ inches in breadth. It consists of seven perpendicular and twelve horizontal bars, besides the frame. The perpendiculars are much wasted between the lowest horizontal bar and the frame. The bars, like those of Glamis, alter their dimensions in the two divisions of their length; where pierced they are about $1\frac{1}{2}$ inch square, expanding at the eyes to $2\frac{5}{8}$ inches, but in the penetrating division they are $1\frac{1}{2}$ inch by 1 inch. In the frame the bars are rather larger. The three hinges are of the usual form, and are contained in recesses of the wall. The three bolts are squared in the middle, and are the most massive I have met with. They differ in size, the upper one being 25 inches in length, and the two lower ones 29 inches, and each has a different maker's mark upon it. The hasps are of the same form as those at Glamis, ending in a small hook and ring.

The position of the grated door is quite peculiar. I therefore reproduce Mr Leslie Milne's ground plan (fig. 19) of the defences to the entrance of the castle, from which it will be seen that the iron door B is 6 feet 8 inches behind the wooden one A. In no other instance have I found evidence of the two doors being separated by more than a few

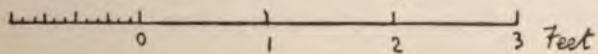
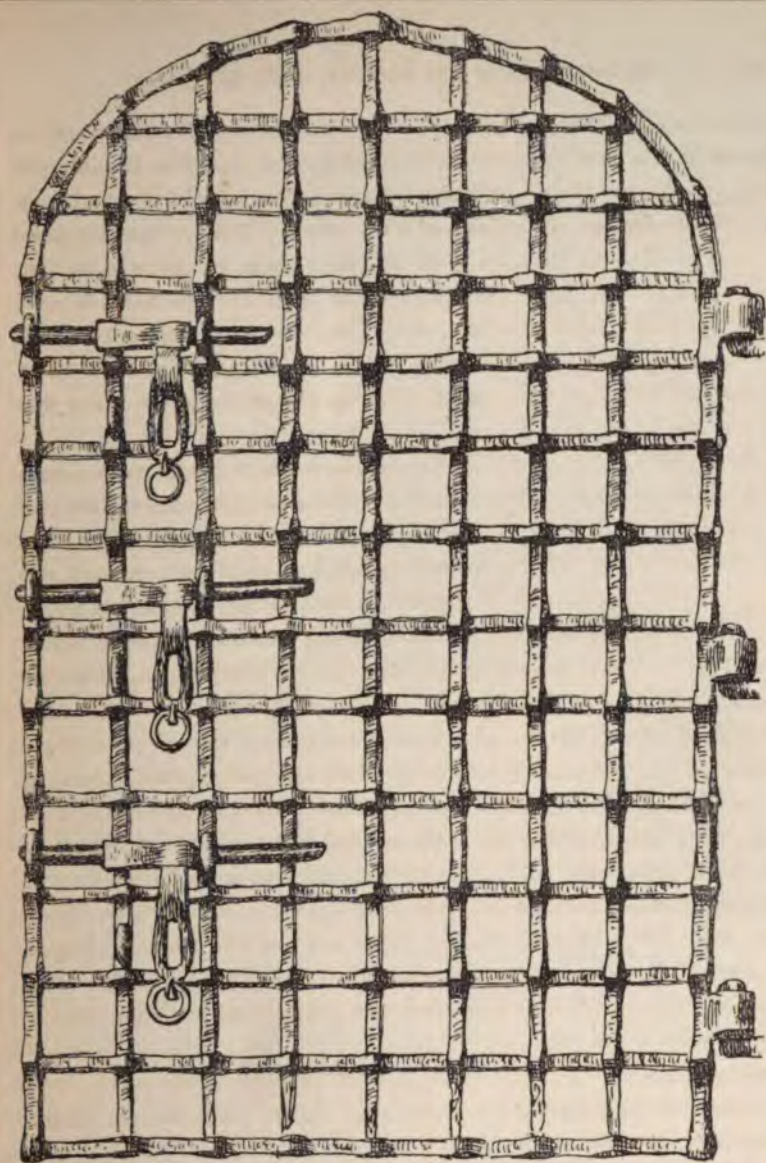


Fig. 18. Grated Iron Door, Fyvie Castle.

the doorway, and in front of the wooden door ; nevertheless, such was not the primitive arrangement, and the following history of the changes made, given to me by Sir Robert, affords an instructive warning to antiquaries to avoid drawing conclusions too hastily from the present aspect of things :—" Formerly there was a wooden door of oak, studded with large-headed iron nails, situated outside the iron door, opening inwards, and having hinges on the right. The iron door, a few inches further in, also opened inwards, with hinges on the left, and was closed with two bolts of similar construction to those now used in field gates, with a loop for a padlock ; also by an iron bar stretching right across from holes in the wall. The two doors were as close to each other as the working of the hinges would allow ; in fact, the iron door must have almost pressed against the wooden one, so as to support it and prevent it from being forced inwards. Some years before 1840, the ancient doorway was built up, and the iron door was left leaning against the wall. In that year, the doorway was re-opened and the iron door replaced, but not in the old position. In order that it might be seen by visitors arriving at the new entrance to the castle, the architect, Mr Burn, reversed its position with regard to the wooden door, so that it is now before instead of behind the latter."

There is nothing particular to note in the structure of the door itself. The representation shows all the bars, but three sides of the outer frame are concealed by the rebate.

The doorway is remarkable, however, as being, so far as I can learn, the only one which retains a strengthening bar. This is of iron, and is put in position, as Sir R. Menzies informs me, by first passing one end into the right hand hole in the wall, then passing the other into the left hand hole, until it can be dropped over a staple which projects from the floor of the hole, some distance within. The staple passes through an eye in the bar, which is thus prevented from moving horizontally, and it was no doubt restrained from being lifted upwards by a pin passed through the staple. The dimensions of the bar are 5 feet 3 inches, $2\frac{1}{4}$ inches, and $1\frac{1}{2}$ inch. The eye is $2\frac{3}{4}$ inches by $1\frac{1}{4}$ inch. The staple stands

4 inches high, and is 2 inches by 1 inch in its other dimensions. The circular hole in it is $\frac{3}{4}$ inch in diameter. The holes in the wall are $5\frac{1}{2}$ inches high and $2\frac{3}{4}$ inches wide.

Two loopholes specially intended for the defence of the doorway are shown in the photograph; and at some distance to the left a round aperture may be seen, of which Sir Robert gives the following curious account:—"This was a kind of punishment 'branks.' The hole penetrates the wall, of equal diameter throughout; the arm of a culprit was put through it and secured by a bracelet and chain, leaving him standing outside." The photograph also shows the windows on the ground-floor, defended by grilles constructed on the same principle as the door.

Doune Castle, Perthshire.—An iron yett is now fitted up at Darnick Tower, Roxburghshire, which, I am informed, originally came from Doune. There is still at Doune a very large iron grated door, with a wicket in it, which, from a drawing in Billing's *Baronial Antiquities*, seems to be of a more modern construction than those which I have been describing.

Barcaldine Castle, Argyleshire.—The iron door here is much decayed. It still hangs in a forlorn-looking manner from the upper hinge; not only is the lower hinge gone, but the lower third of the gate itself has disappeared. Within the frame it has five perpendicular bars, and the horizontal ones must have numbered eight if not nine, of which only five and the greater part of the sixth remain. The bolt is also gone. As this door is so imperfect, I do not reproduce the drawing kindly made for me by Mr Anderson Smith; but it shows that here in the Western Highlands an iron cross-barred door of precisely the same construction as the Lowland examples was in use. Mr Anderson Smith's drawing and description also prove that the other defensive arrangements were similar. The iron door occupies the inner rebate and in the wall behind are the hole and tunnel for a strengthening bar. A remaining hinge shows where a wooden door, no doubt, had swung in the outer rebate, but there are no holes in the wall for a bar behind it. Mr Smith adds—"The gate does not appear to be of as elegant workmanship as the numerous windows, all defended by interlaced ironwork of a more systematic but equally strong

character. All the ironwork about the castle has been of most substantial character, and affords good solid examples of smith work."

Moy Castle, Argyleshire.—At the request of Mr MacLaine of Lochbuy, Mr Lindsay Bury has sent me a drawing and description of the iron door at Moy Castle in Mull. This door is much worn, especially at the bottom, where it has lost the lower hinge and two lower horizontal bars. The five upright and six remaining horizontal bars interpenetrate in the characteristic manner. Some ring-shaped staples survive to show that the door had been fastened by a couple of bolts. The door is placed in an inner rebate close behind a modern wooden door, which has replaced an ancient one, said to be still in existence. Behind the iron door are holes in the walls for receiving a wooden bar about five inches in diameter.

I have now concluded my description of Scottish grated iron doors. To notice at any length other kinds of mediæval Scottish iron work would be beyond the scope of this paper, but a few remarks on window gratings may not be out of place. In the olden time the amount of iron work of this kind in Scottish castles must have been enormous. From the holes left in the masonry, it is evident that in many cases from top to bottom every window was barred with iron. The following extract from the accounts of Innes House, referring to a shipment of iron for windows, &c., has been published by the Spalding Club:—"The compt of the yron maid in crookis and windows, that come from Leith, extending to aughten stainis and six poundis, and ten restis of the yron being ane hundred stein and two stains, four score three stainis and ten pound—this 19th of Janii 1641." Comparatively few Scottish window grilles remain, but enough to show that the principle of construction which was universal in the yetts was also extensively applied to them. They were of two kinds. In one the stanchions stretched across between the jambs of the window. In the other the stanchions were fixed into the outer surface of the wall, and formed a cage projecting in front of the window. In both the principle of alternate penetration by groups of bars was used. Examples of the first are shown in the photograph of Castle Menzies. A fine example of the second—at Talquhoun Castle, Aberdeenshire—is engraved in *The Baronial and Ecclesiastical Antiquities of Scotland*.

An interesting question remains to be discussed. Is the principle of construction used in the Scottish grilles of native origin? Turning first to our English neighbours, it is a striking proof of how little the one nation borrowed from the other in arts or manufactures, as long as they were at deadly feud, that the moment the border is crossed a totally different construction is found in the defensive grilles. I expected to have illustrated this by plans and drawings of several grated doors in the neighbourhood of Carlisle kindly made for me by Mr Ferguson,

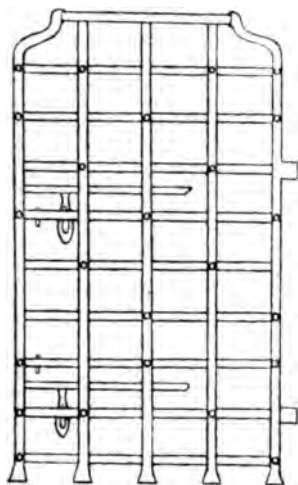


Fig. 21.

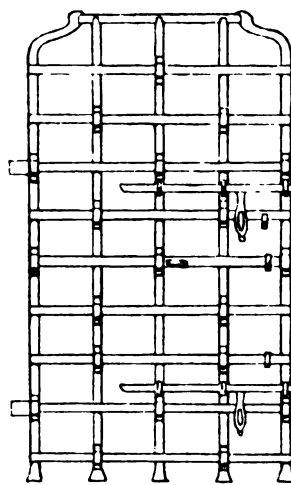


Fig. 22.

F.S.A., F.S.A. Scot., Mayor of that city. Most unfortunately, these drawings were lost in transit by post, and their place is but poorly supplied by rough plans of my own, intended merely to show by views from the front (fig. 21) and back (fig. 22) the principle of construction of an iron door in the tower of the church at Burgh-on-Sands. On the eastern side of the English Border I have been more fortunate, having safely received from the Rev. Mr Dwarria, Vicar of St Peters, Stocksfeld, hasty but graphic sketches (figs. 23, 24) by Lieutenant Archdale

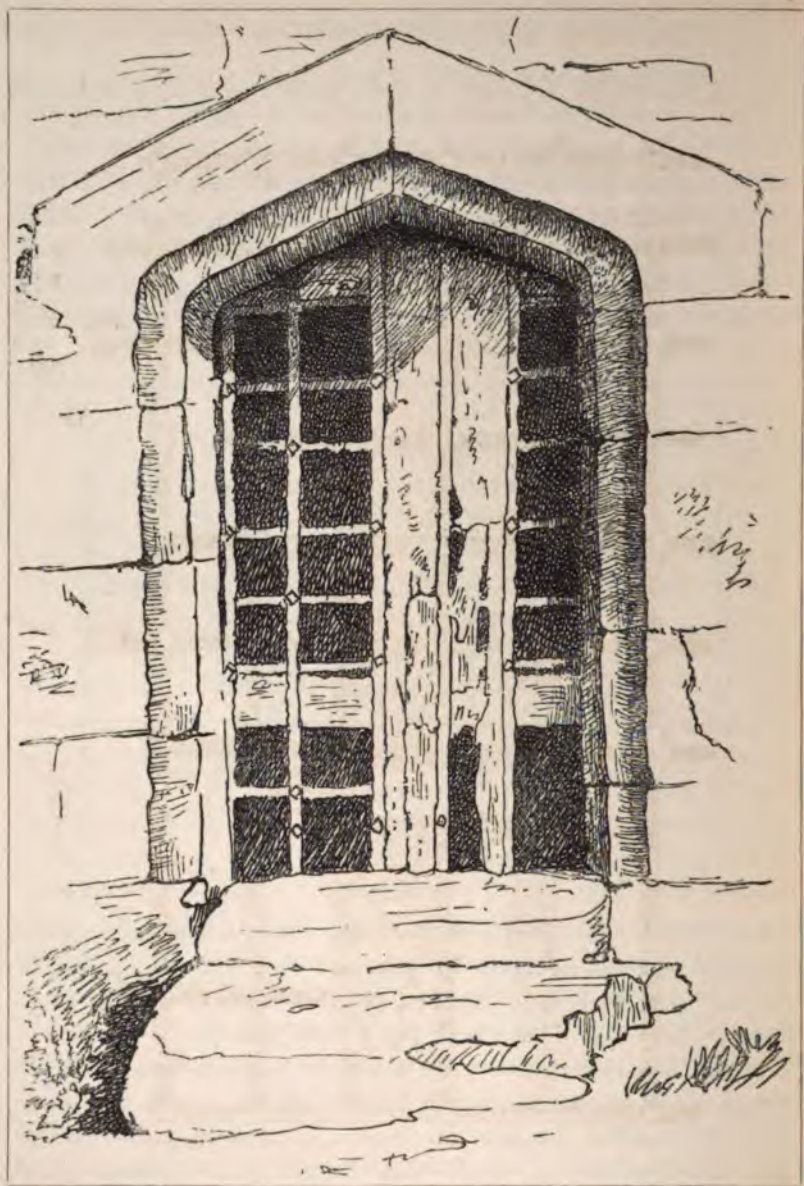


Fig. 23. Grated and Planked Door, Bywell-on-Tyne, Northumberland.

Wilson, Royal Irish Regiment, of a much-worn grated door at Bywell

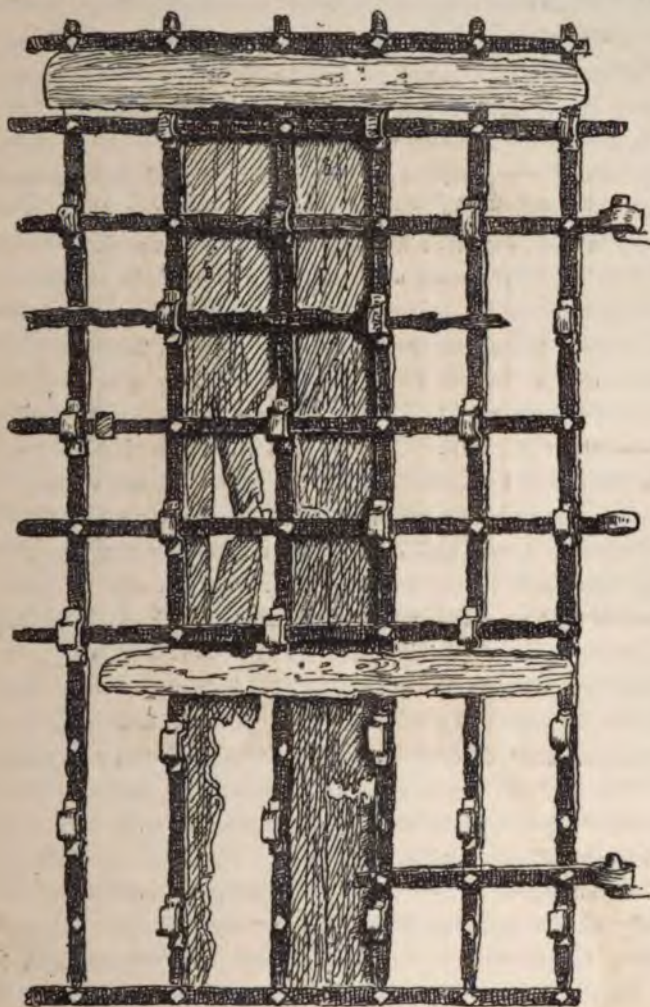


Fig. 24. Door at Bywell-on-Tyne, seen from the inside.

Castle, on Tyne. The principle of construction in both the Burgh

and Bywell examples, as well as in three others at Naworth Castle, which I visited under the guidance of Mr Charles J. Ferguson, and in one at Dalston, near Carlisle, is identical. As shown in the plans and drawings, the bars do not penetrate each other; the uprights are all in front of the horizontals; at their intersections they are fixed to each other by rivets, and at every alternate intersection by clasps welded on behind. Another marked distinction of these English doors is that they were boarded with oaken planks. In most instances these have disappeared, but in the great arched and wicketed entrance door at Naworth Castle they are still entire, and they remain partially in the door at Bywell (see figs. 23, 24). This system of planking was easily carried out in the English grilles, because, from their structure, the spaces between the perpendicular bars in front could be filled by planks of the full height of the gate, and the spaces between the horizontals behind by planks of the full width. Thus in fact a level surface of wood and iron was produced before and behind. I did not see any signs at Burgh, Dalston, or Naworth of wooden doors having been used in addition to these composite doors, and hence it would appear that the iron and wooden doors, which were separate on the Scottish side of the border were united into one, as it were, on the English side. I have met with no evidence of planking having been used in Scottish yetts.

It may be noticed in the plan (fig. 22) of the iron door at Burgh-on-Sands that there are two staples on one of the horizontal bars—one fixed perpendicularly, the other horizontally. As they are on a level with the holes in the wall for a strengthening bar, there can be little doubt they were designed for fastening the bar to the gate. I have seen no trace of this particular arrangement in Scotland.

It does not appear likely that the Scottish grille, after disappearing so suddenly on the Borders, should crop up again in any other part of England; but all that I can say from my own knowledge is, that I could see nothing like it in the window grilles of several cathedrals and ruined castles in the west of England, or of the Oxford colleges.

Did Scotland then derive the principle of its iron yetts from the

Continent, more especially from France, its close ally for so many centuries? In the few books bearing upon the subject which I have been able to consult, I could find no evidence of the Scottish system having been of French origin. In Viollet le Duc's *Military Architecture* grilles are mentioned as having been in common use to defend the passages of mediæval castles in France; but there are no descriptions or drawings of them, and it is not clear from the text whether any of them remain. In the *Dictionnaire de l'Architecture* the following passage about window grilles occurs:—"Les mesures de precaution étaient même poussées si loin que, dans certains cas, les montants et traverses étaient assemblés de telle façon qu'il devenait impossible soit de faire couler les montants dans les œils des traverses, soit les traverses dans les œils des montants. Il fallait être fort habile forgeron pour fabriquer des pareilles grilles, car chaque œil renflé devait être forgé à mesure que l'on assemblait les traverses et les montants, c'est-à-dire que la grille devait être forgée tout brandie, ce qui devait occasionner un travail considerable. L'ouvrier devait ainsi mettre au feu chaque maille de grille un certain nombre de fois. Mais ces hommes semblaient se jouer avec les difficultés de main-d'œuvre, qui aujourd'hui nous paraissent insurmontables. On trouve des grilles de ce genre, c'est-à-dire à œils alternés à Troyes, à Strasbourg et dans beaucoup de localités du Nord et de l'Est. Elles datent des xiv., xv., et xvi. siècles." An illustration is given from a grille in Constance, which shows that the alternations in the penetrations take place at every intersection of the bars, as described in the text.

Apparently this is the nearest approach in France to the Scottish system. But I am informed by Dr Caton of Liverpool that grilles, constructed exactly like our Scottish examples, still exist in the Tyrol and North Italy. Dr Caton gives a drawing which proves this, and adds—"These grilles were not gates but fixed window gratings. The first I saw was in the church of Cortina in the Tyrol. Subsequently I saw many at Venice, all in very old buildings. None of these grilles were later, I should think, than the sixteenth century, and many were probably much older. They were very numerous in the prison adjoining the ducal palace."

MONDAY, 12th February -

PROFESSOR DUNS, D.D., in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows:—

DAVID BRAND, Advocate.

ROBERT HALLIDAY GUNNING, M.D., 30 Hazlitt Road, London.

W. G. BURN MURDOCH, Westerton House, Polwarth Terrace.

JOHN STRACHAN, M.D., Dollar.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

(1.) By Colonel DAVID BALFOUR of Balfour and Trenaby,
F.S.A. Scot.

Rude Stone Vessel formed of an irregularly oval boulder of sandstone, roughly hollowed with a cavity like that of a knocking-stone. The boulder measures 16 inches in length, $10\frac{1}{2}$ inches in breadth, and 7 inches in height; the cavity, which is oval in shape, measures 10 inches in length by 5 inches in breadth, and about the same in depth.

Similarly formed Vessel of sandstone, roughly triangular in shape, measuring 8 inches in length by $6\frac{1}{4}$ inches in breadth, and 4 inches in height, with a shallow oblong cavity picked in its upper surface.

Oblong Pestle Stone of sandstone, 8 inches in length.

Flat Slab of Sandstone, 30 inches in length, 2 inches in thickness, having on one edge a number of markings somewhat resembling the characters of an Ogham inscription, but probably produced by using the exposed edge of the slab for sharpening some pointed instruments.

These objects were all found in the ruins of an ancient structure near Stennis, Orkney.

(2.) By WILLIAM TRAILL, Holland House, Papa Westray, Orkney.

Stone Ball of greenish-coloured serpentine, $1\frac{3}{4}$ inches diameter.

Spear-head of iron, $4\frac{1}{2}$ inches in length.

Fragments of coarse unglazed Pottery, plain, and ornamented with impressed markings.

Found in the ruins of ancient structures at St Tredwell's Loch, Papa Westray.

Mr Traill furnishes the following notes descriptive of the site, and of the circumstances in which these objects were found :—

“On the east side of the Loch of St Tredwell, in Papa Westray, there is a small peninsular mound on which St Tredwell's Chapel stands. The chapel is a rectangular building 29 feet in length by 22 feet in breadth, the walls averaging 4 feet 3 inches in thickness, dry built, and joint harled with lime, having the door in the south-west corner, with a window opposite. In clearing the stones and rubbish out of the chapel we found on the floor level thirty copper coins, consisting of twenty-one of the reign of Charles II., three of George II., two of George III., two French, and one Dutch.

“Immediately to the north of the chapel the foundations of a circular building 15 feet in diameter can be traced. The wall of this building, of which about 2 feet in height remains, is $2\frac{1}{2}$ feet in thickness, and is built of much smaller stones than the chapel, having the door also facing the south.

“We found a piece of subterranean building, the north wall of which crosses the inside of the south wall of the chapel about the middle, and the west wall about 3 feet from the inside of the south. As this building, which slopes inwards towards the top, was filled up with earth, we determined to find it outside the chapel. In clearing away the rubbish on the outside a passage was discovered about a foot below the surface, which crosses the first one almost at right angles. This passage is only about $1\frac{1}{2}$ foot wide for about 10 feet north, where it turns towards the west, and continues in this direction for about 23 feet, varying in breadth from 2 to 4 feet. This passage was clear enough for a person to enter when first found. On the east side of the passage, where it joins what appears to be a circular building, is a round chamber, each course of

building overlapping the other until the centre is covered with one stone. We were unable to get the demensions of it, as the rubbish had not been cleared from the entrance. In deepening the passage we found a quantity of charred grain. It was also in this passage, where it joins the circular building, that the spear-head and stone ball, now presented to the Museum, were found.

"In clearing the earth away from what showed signs of a building on the south-east side of the mound we came on a kitchen midden or refuse heap, consisting principally of edible shore-shells, in which we found a great quantity of broken pottery, specimens of which are also presented to the Museum."

(3.) By ROBERT JOHNSTONE STEWART of Glasserton, through Dr ARTHUR MITCHELL, *Vice-President*.

Stone, 25 inches in length, 10 inches in breadth, and $2\frac{1}{2}$ inches thick, with two incised crosses on one of its faces, from St Ninian's Cave, Physgill, Wigtownshire. [See the subsequent communication by C. N. Johnston.]

(4.) By A. G. REID, F.S.A. Scot., Auchterarder.

Flint Arrow-Head with barbs and stem, and Flint Knife and Scraper, found on the farm of Drumfad, parish of Blackford, Perthshire.

Four Spindle Whorls, from Auchterarder.

(5.) By Dr DAVID PAGE, Kendal.

Three Bronze Spear-Heads (broken), 10 inches, $8\frac{3}{4}$ inches, $7\frac{3}{4}$ inches, and $5\frac{3}{4}$ inches in length; and a Socketed Knife of bronze, $6\frac{1}{2}$ inches in length, found together at Newbiggin, Northumberland. The spear-heads are all of the type with leaf-shaped blade, socket cored down the centre of the blade almost to the point, and pierced by two rivet-holes near the butt. The knife has a short oval socket with two rivet-holes, and a narrow blade, shaped like the blade of a short bronze sword. Implements of this form are rare in Scotland.

In a letter accompanying the donation, Dr Page gives the following account of the circumstances connected with the discovery of this hoard of bronze objects :—

“The objects which I forward for the Museum consist of bronze spear-heads and the fragments of what would appear to have been a bronze knife or dagger. The whole of these were found by some labourers engaged in making a cutting down to the sea-shore at Newbiggin-by-the-Sea, in Northumberland, in June 1878. My late father, Dr Page, Professor of Geology in the University of Durham, happened to be staying at Newbiggin at the time, and, visiting the spot during the excavation, secured the relics I now send you. Others not so perfect were also found, and passed into other hands. There were no remains of pottery or bones found.”

(6.) By JAMES ROBB, Gas Manager, Haddington.

Portion of a Sharpening Stone, $6\frac{3}{4}$ inches in length, oval in section, and presenting somewhat the appearance of a broken portion of a polished celt, found at Haddington.

(7.) By W. K. THWAITES, S.S.C.

Arrow-Head of chert, $1\frac{3}{4}$ inches in length, from Ontario, Canada.

(8.) By DAVID DOUGLAS WESTLAND, 13 Viewforth Place.

Arrow-head of quartz, $1\frac{1}{4}$ inch in length, found on the banks of the Santa Lucia, Uruguay, South America.

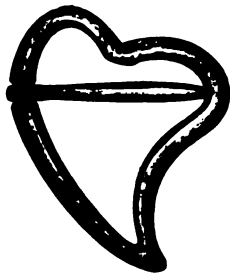
(9.) By THOMAS ROBERTSON, 11 Grange Road.

Two Zulu Assegais, 3 feet 9 inches and 4 feet 2 inches in length, with iron heads.

(10.) By Mrs J. R. D'OLIER, Booterstown, Dublin.

Heart-shaped Brooch of Silver, from Shian, Perthshire, of the variety known as “Luckenbooth Brooches,” from their having been commonly

sold in the "Luckenbooths," around St Giles's Church, on the High Street of Edinburgh. The brooch is here figured of the full size. Brooches of this form were mostly love-tokens and betrothal-gifts, and this one, like most of its kind, bears on the reverse the word LOVE.



Heart-shaped Brooch of Silver, from Shian, Perthshire.

Tortoise-Shell Comb for the back-hair, also from Shian, Perthshire.

(11.) By J. CHRISTISON, W.S., 40 Mornay Place.

The Edinburgh University Calendar, 1859-60 to 1877-78 inclusive, and 1880-81 and 1881-82 inclusive.

(12.) By the SENATUS OF THE UNIVERSITY.

The Edinburgh University Calendar, 1882-83.

(13.) By Professor F. J. CHILD, the Editor, through WILLIAM MACMATH, F.S.A. Scot.

The English and Scottish Popular Ballads. Edited by FRANCIS JAMES CHILD. Part I. Folio. Cambridge, Mass., U.S.A., 1882.

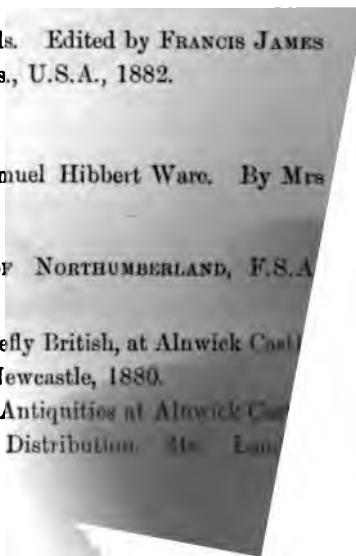
(14.) By Mrs HIBBERT WARE.

Life and Correspondence of the late Samuel Hibbert Ware. By Mrs Hibbert Ware. 8vo. Manchester, 1882.

(15.) By His Grace The DUKE OF NORTHUMBERLAND, F.S.A. Scot.

Descriptive Catalogue of Antiquities, chiefly British, at Alnwick Castle. Printed for Private Distribution. 4to. Newcastle, 1880.

Catalogue of the Collection of Egyptian Antiquities at Alnwick Castle. By S. Birch, D.C.L. Printed for Private Distribution. 4to. London, 1880.



There were also Exhibited—

By The Very Rev. Principal TULLOCH, D.D., LL.D., F.S.A. Scot.

Three Silver Vessels belonging to St Mary's College, St Andrews.
[See the subsequent communication by Principal Tulloch.]

The following Communications were read :—

I.

NOTICE OF THREE SILVER VESSELS BELONGING TO ST MARY'S
COLLEGE, ST ANDREWS. BY THE VERY REV. PRINCIPAL TULLOCH, D.D.,
F.S.A. SCOT.

The silver vessels now exhibited to the Society belong to St Mary's
College, in the University of St Andrews.



Fig 1. Chalice, St Mary's College, St Andrews.

1. A Chalice $5\frac{1}{4}$ inches in height (fig. 1), consisting of a bowl $2\frac{1}{2}$ inches deep and $8\frac{3}{4}$ inches diameter, set upon a footstalk of silver $3\frac{3}{4}$ inches high.

The bowl is of wood, mounted with a rim of silver, and having a circular plate of silver inserted in the bottom, on which is engraved COLLEGIUM NOVUM SANCTI ANDRÆ 1567, and the 31st verse of the 10th chapter of 1st Corinthians, with the 17th verse of the 1st chapter of St John's Gospel, both from the Vulgate text. It is of Scotch manufacture, and



Fig. 2. Silver Chalice, St Andrews.

stamped according to the Act of 1457 in the reign of James II.—all the marks required by that statute being those of the maker, and of the head officer of the town when there was no deacon of the craft.

2. A smaller Chalice (fig. 2) of very elegant form, $7\frac{1}{2}$ inches in height.

but the cup only 4 inches diameter and $1\frac{1}{2}$ inch deep. The footstalk is 5 inches long, and the foot 3 inches diameter. The chalice bears the following inscription:—

SS THEOL. FACULTATI ST AND. DEDIT
GULIELMUS GUILD ABERDONENSIS 1628.

The late Mr Sanderson of Edinburgh, who had specially studied the hall-marks on early plate, was of opinion that this chalice had been made in London in 1533, as it bears all the London trade marks of that date.

3. The third article was a silver Dish (fig. 3), 3 inches high by $4\frac{1}{2}$



Fig. 3. Silver Salt Cellar, St Mary's College, St Andrews.

inches in diameter, bearing the St Andrews town-mark of the date 1671, with the initials of the town officer G. T. on the opposite side. The slight bowl of this vessel is clumsily patched. In Cripps's volume on English Silver Plate it is mentioned as "a salt-cellar;" but Mr Sanderson styles it "a font."

[Rev. William Bruce referred to the probability that the William Guild of Aberdeen, the donor of the smaller chalice to the Theological Faculty of St Andrews in 1628, was Dr William Guild, subsequently one of the ministers of Aberdeen, and founder of the Trades' Hospital there, also well known in connection with the disputes regarding the Covenant in 1638; author of *An Antidote against Poperie*, and many other works of a similar cast; and latterly Principal of King's College, Aberdeen, from 1641 to 1651.]

II.

NOTICE OF THE DISCOVERY OF CUP-MARKED STONES NEAR KILLIN,
PERTHSHIRE. IN A LETTER TO J. ROMILLY ALLEN, FROM D.
HAGGART, KILLIN.

Mr Haggart writes:—"When at Aberfeldy last year, I went up to a place called Styx, at Bolfracks, where there is a very fine circle of some thirty very large stones. I examined it particularly for cup-markings. There is at the western edge a flat boulder or flagstone partly buried, and by dint of scraping off the moss, I found twenty or so of cups on the upper edge. It is quite as interesting as the one figured by you at Moncreiffe Park. I was lately down at Loch Tayside, and found on the companion rock at Cragantoll two cups, while there is a boulder beside the rock with some nine cups. The companion rock is called Craganestol.

At Curie there is a boulder (a large one) with some forty cups. It will compare favourably with the one at Murthly, near Aberfeldy. Curie is the village to the west of the rocks mentioned.

Again I happened to be shooting at Threchar, near Farnham, and saw the top corner of a boulder, but the cups were covered with moss. I thought, however, that it was worth a visit, and on the field becoming clear, I found it was a boulder with thirty to forty cups.



Crucifix of St. John the Evangelist, found in the Church of St. John, 7th.

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NOTICE OF THE DISCOVERY OF CUP-MARKED STONES NEAR KILLIN, PERTHSHIRE. IN A LETTER TO J. ROMILLY ALLEN, FROM D. HAGGART, KILLIN.

Mr Haggart writes:—"When at Aberfeldy last year, I went up to a place called Styx, at Bolfracks, where there is a very fine circle of some thirty very large stones. I examined it particularly for cup-markings. There is at the western edge a flat boulder or flagstone partly buried, and by dint of scraping off the moss, I found twenty or so of cups on the upper edge. It is quite as interesting as the one figured by you at Moncrieffe Park. I was lately down at Loch Tayside, and found on the companion rock at Cragantoll two cups, while there is a boulder beside the rock with some nine cups. The companion rock is called Cragganester.

"At Curie there is a boulder (a large one) with some forty cups. It will compare favourably with the one at Murthly, near Aberfeldy. Curie is the village to the west of the rocks mentioned.

"Again, I happened to be shooting at Tirarchar, near Killin, and found part of the ring fence of a burial mound, but the circle had disappeared, if there had been one. I thought, however, that it was part of a mound, and I explored the field for corroborative evidence, and found quite near a rock with thirty to forty cups, and I was satisfied that my

surmise was correct. There are a number of stones here and there with from one to five or six cups. Those mentioned are the principal ones since I saw you.

"I have also, since you last wrote to me, discovered another cup-marked stone at the farm of Mid Lix, near Killin. It is a very good specimen, with between sixteen and twenty marks, well cut and distinct. I was passing the farm three weeks ago, and I thought, from the name Lix—which is a Gaelic word corrupted from Lic, the plural of Leac, a tombstone or flagstone—that it was very likely to have stones with marks, and I asked John Little, farmer, to keep a look out for such. He did so, and found the one mentioned within twenty yards or so of the road leading to Killin Railway Station, and between the farm and the roadway, due west of the farm-house. There are three farms of the name—Easter Lix, Mid Lix, and Upper Lix; and I shall be curious to know if the three farms have carvings on their flags."

golden of which will qualified to speak on the subject, the art was not known to these nations in the early days. In support of this theory, in a treatise on the enamelled ornaments of the Louvre, Monsieur Laborde states that after minute examination of the national collections of Europe he has been unable to find an instance of true enamel amongst the productions of these nations. A coloured clay, to casual inspection, resembling enamel is of frequent occurrence, but the process was the simpler and more imperfect one of pressing into cavities in wood or metal prepared for it a coloured mixture of paste. The Greeks and Romans learned from the Egyptians the art of combining coloured glasses, some of which were used in mosaic work, but the application to metal of colours afterwards vitrified was, he says, unknown to them.

It would thus seem that this is the origin of this art! Although in the tenth century Byzantine work was largely introduced to Western Europe, and eventually Byzantine workmen taught the Germans the art, certain it is that in Celtic ornaments enamel is found of perfect workmanship of a fine metal with the Roman occupation of this country. Dr Anderson suggests as at least a possible solution of the question, that the art was borrowed at a late date by the Romans from the Celtic or Germanic nations, and Schnasse mentions a fact which is of interest in view of this theory. A few years ago there was discovered in Ravenna a peculiar ornament which is preserved in the library there. It is described as being of filigree work filled in with enamel, and it is stated in the catalogue to be a portion of the trappings of King Odoacer, who captured Rome in A.D. 476. Without assenting to, somewhat arbitrary assumption, this ornament is without doubt of Celtic or Germanic origin, and is in all probability a relic of one of the invasions of Italy by the Germans about or before

Byzantine enamel
of work called of the
execution, and short
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Crucifix of Bronze, enamelled, found in the Churchyard of Ceres, Fife.

III.

NOTICE OF A CRUCIFIX OF BRONZE, ENAMELLED, FOUND IN THE CHURCHYARD OF CERES, FIFE. BY JOHN M. DICK PEDDIE, ARCHITECT, F.S.A. SCOT.

Through the kindness of Dr Keith Macdonald of Cupar, I am able to exhibit to the Society this enamelled figure, which evidently formed a portion of a crucifix ; unfortunately, the cross to which the figure was probably attached is gone.

It was found at Ceres, Fife, in the churchyard, at a depth of 3 feet from the surface of the ground. It is $6\frac{1}{2}$ inches in length, of copper gilded, the drapery being filled in with blue and green *champlevé* enamel, and the eyes, now empty, were probably filled with precious stones. On the head is a crown of simple form, and it will be noticed that the hair and ornaments of the dress are indicated by dotted engraved lines.

A leading characteristic at once distinguishes this figure from the usual representations of the Crucifixion. I refer to the long tunic or toga with which the body is entirely draped ; and on what may be inferred or rather surmised as to its date and origin from this and some other features, and on the subject of enamel and crucifixes in general I have put together a few notes.

Schnasse, in his *Geschichte der bildenden Künste im Mittelalter*, states, in common with other writers on the subject, that the art of enamelling is extremely ancient—the Egyptian and Oriental nations having practised it at an early date ; and numerous specimens are, he says, still extant of Greek and Etruscan enamelled ornaments. He then proceeds to say that both Greeks and Romans, at the time when their art attained to its highest development, neglected the process ; that it was revived in Byzantium, and from thence introduced to Western Europe. Dr Anderson has, however, kindly pointed out to me that this history of the art is at least open to grave doubt, and that, in his opinion, and in the

the British Museum a medallion with an effigy of the Bishop of Winchester and relative inscription of Rhenish origin, and at a later date Limoges work was also introduced.

We may then, I think, safely draw at least a negative conclusion as regards this crucifix, namely, that it is not Byzantine; but before hazarding any more definite opinion on the point of its origin and age, I shall shortly refer to the treatment of the figure, which is not unimportant as helping to a conclusion.

In the early Christian Church there existed that strange mixture of Christian and heathenish elements which led to such an anomalous result in the Catacombs as the representation of our Lord as Orpheus. Later a great controversy arose as to the propriety of depicting our Lord, excepting by such symbols as the Lamb and Good Shepherd. Constantia, in the fourth century, having requested the Bishop Eusebius to procure for her a picture of our Lord, received in reply a rebuke on the sinfulness of the desire. Gradually, notwithstanding opposition, the story of the life of our Lord more and more frequently became the subject of art. Until a comparatively late date, the culminating moments of His life—His crucifixion and crowning with thorns—were avoided as perhaps too sacred, perhaps as forming too great a contrast with the joyful representations of the divinities of heathen mythology. About the middle of the ninth century crucifixions in Byzantine work began to appear, and from that date they increase in number. In these earlier works the intention appears to have been not to present the shame and agony of the cross, but Christ triumphing over death. He is sometimes represented as standing free on the cross in erect attitude, and generally robed, more frequently nailed to the cross, sometimes with four, sometimes with three nails—four nails being more usual in the earlier examples. In the twelfth century the long tunic becomes shorter, and in the thirteenth, and still more commonly in the fourteenth, it has given way to the cloth round the loins.

Turning to the Ceres crucifix, we find the long robe entirely covering the body, and the attitude has still the characteristics of the earlier repre-

sentations. In the elaborate work by Hefner-Alteneck entitled *Trachten, Kunstwerke und Geräthschaften vom frühen Mittelalter*, in the second volume, is a crucifix, probably of German origin, which has many similarities with the Ceres specimen. The hair and beard are of precisely the same treatment, and the head is crowned. This specimen is assigned to the middle of the twelfth century. It will be noticed that in this case the figure has only the cloth round the loins. To attribute it on that account to a later date than the Ceres crucifix would not, I think, be justifiable, as, although I have indicated the general tendency which art took in representations of the Crucifixion, many instances occur at an early date of the substitution of the cloth on the loins for the long tunic. On the other hand, I have been unable to find that any reversion took place to the older custom in this matter, and I think in general the retention of the long tunic may be regarded as evidence of comparative antiquity.

After careful consideration, I am inclined to think that this crucifix is of German origin, and that it is not unlikely one of the earlier specimens of Champlevé enamel of perhaps the middle of the twelfth century. This figure, whilst it has not the characteristic of the latest Byzantine figures, disproportionate length, has, on the other hand, the conventional and impossible arrangement of the folds of the tunic, strongly reminding us of its Byzantine prototypes. It is within the limits of possibility that this crucifix is of native workmanship, but, as I believe no work of this class has ever been found in this country, it is at least improbable, and the weight of the evidence is, I think, in favour of the origin I have indicated.

[The crucifix has since been presented by Dr Keith Macdonald to the Museum.]

IV.

"HOLY WELLS" IN SCOTLAND. BY J. RUSSEL WALKER, ARCHITECT,
F.S.A. Scot.

The virtues of water seem to have been recognised by every tribe and people, and resort to fountains has apparently been universal in all ages, "combining as it does medicine and mythology, the veneration of the sanctified with the relief expected through their mediation." The Egyptians, from time immemorial to the present day, have venerated the waters from the benefits imparted by them. Neptune, the great marine deity, had bulls sacrificed to him. Aristotle speaks of the fountain Palica in Sicily, "wherein billets floated if inscribed with truth; but they were absorbed, and the perjured perished by fire, if bearing false affirmations." "Theft was betrayed by the sinking of that billet inscribed with the name of the suspected thief, thrown with others among holy water." Virgil claims the indulgence of Arethusa. The Jews were possessed of holy pools and wells. He who entered the pool of Bethesda first, after it had been disturbed by an angel, was cured of his distemper." The Jordan is also a sanctified stream, and thousands still go on pilgrimage to perform their ablutions in it.

The savage tribes of America worshipped the spirit of the waters, and left their personal ornaments as votive offerings. The ancients, alike Greeks and Romans, worshipped divinities of the fountains, and erected temples and statues in their honour. The Druids in our own land awed the poor heathen people by casting spells over certain springs; and in the very dawn of Christianity in Scotland, we find one of these Druid wells blessed, and its baneful waters turned into waters of healing by the great preacher and saint—Columba. In Adamnan's *Life of St Columba* we find the following passage:—

"Whilst the blessed man was stopping for some days in the province of the Picts, he heard that there was a fountain famous among this heathen people, which foolish men, having their senses blinded of the devil, worshipped as a

god. For those who drank this fountain, or purposely washed their hands or feet in it, were allowed by God to be struck by demoniacal art, and went home either leprous or purblind, or at least suffering from weakness or other kinds of infirmity. By all these things the pagans were seduced and paid divine honours to the fountain. Having ascertained this, the saint one day went up to the fountain fearlessly, and on seeing this, the Druids, whom he had often sent away vanquished and confounded, were greatly rejoiced, thinking that, like others, he would suffer from the touch of the baneful waters. The saint then blessed the fountain, and from that day the demons separated from the water; and not only was it not allowed to injure any one, but even many diseases amongst the people were cured by this same fountain after it had been blessed and washed in by the saint."

In this and similar cases we possibly have the origin of "Holy Wells" in Scotland. And it would seem evident that, however pure the religion of our early Scottish saints may have been, they were perfectly alive to the power it gave them over the people—this snatching of the waters from the baneful fiends their pagan predecessors had cursed them with, and converting them by blessing and washing into waters of purity and healing—and they showed themselves far from slow at the work of conversion. Doubtless, however, many of our holy wells were not called after the saints until after their death. They may have been so called for various reasons, such as the baptising of neophytes at them, or special cures effected through them, or from the original fixing of the saints' cells owing to the presence of a spring, and the subsequent rearing of churches near the springs in honour of the saints,—hence we find such wells commonly in the vicinity of old ecclesiastical sites, and in many cases the wells alone remain to mark the places where these early Christian structures were reared. It seems clear that our Scottish wells are mostly due to the emigration of early Celtic saints from Ireland. In that country they abound in great numbers, and "are frequently found in clusters." Miss M. Stokes, in *Early Christian Architecture in Ireland*, says—"These fountains, with their equally sacred trees, covered with votive offerings of propitiation or gratitude to the spirit of the place, form studies of the deepest interest, particularly where, amid the wild scenery which generally surrounds them, groups of worshippers, in the rich colours of their

national costume, add to the solemn character and poetry of the scene." Cusack, in his *Life of St Patrick*, states that "the history of the Church in Ireland, in its earliest stages, may be read from holy wells as from pages of a book." It has been supposed, with some show of probability, that the spots where holy wells were, marked the route pursued by pilgrims to certain shrines. "A well in those days could not be other than a sort of oasis to the wayfarer and the stranger. They may have shaped the roads by which the most distant parts of the country were linked together, nor are they without interest to the topographist—being custodiers of names interwoven with the districts, and indicating the localities in which they are found, for their names, according to a bygone practice, were sometimes descriptive."

The following seems to have been an ordinary form of blessing wells :—

BENEDICTIO PUTEI.

V. Adjutorium nostrum in nomine Domini.

R. Qui fecit cælum et terram.

V. Dominus nobis-cum. R. Et cum spiritu tuo.

OREMUS.

Domine Deus Omnipotens, qui in hujus putei altitudinem per crepedinam fistularum copiam aquarum manare jussisti, præsta, ut Te adjuvante atque bene ✠ dicente per nostræ officium functionis, pulsus hinc phantasmaticis collusionibus ac Diabolicis insidiis, purificatus atque emendatus hic puteus perseveret. Per Christum Dominum. R. Amen.

The *Missale Sancti Columbani* contains the following form :—

BENEDICTIO SUPER PUTEUM.

Domine Sancte Pater Omnipotens, Æterne Deus, qui Abraham, Isaac, et Jacob, patres nostros Fœderis fodere atque ex his aquam bibere propicia divinitate docuistis. Te supplices deprecamur, ut aquam putei hujus ad communis vitæ utilitatem celeste benedictione sanctifies, ut fugato ea omni Diaboli tentationis, seu pollutionis incursu, quicumque ex ea, deinceps biberit, benedictionem Domini nostri Jesu Christi percipiat. R. Amen.

It would seem to be "implied, if not expressed in the above forms, that some holy wells were once Pagan."

In pre-Reformation times the fame of the wells was at its zenith, and

pilgrimages were made to the most famous of them by the credulous people, mostly women, from all parts of the country, who dipped or washed themselves in them, and straightway were healed, or fancied so; and if they were not, a satisfactory reason was generally forthcoming for the saint not being propitious on that particular occasion.

It seems that wells were generally visited on the first day or the first Sunday of May; which has been explained as "no doubt perpetuating Beltane by the former, and by the latter evincing, perhaps, that in ruder society the precise course of time requires some specific mark."

With a view to propitiate the saint or tutelar divinity towards the devotee, or as a token of gratitude and thankfulness for the benefit derived by the patient from the use of the waters, votive offerings of all kinds were left at the wells. The saints in this particular do not seem to have been very hard on the worshippers; a common pin was regarded in many cases as sufficient. Rags and portions of personal apparel were commonly used for the purpose; pebbles were also commonly used. Gradually those piles of stones came to be known by the name of saints' cairns. Sometimes, however, the most precious substances were offered; valuable coins are now and then found in them still; the value of the offering in all likelihood depended on the rank and wealth of the worshipper. Many of the pilgrims we find were so zealous in their devotion that they cheerfully passed one or more nights beside a well, so that they might, without fail, be present on a particular morning.

Different properties were ascribed to different wells; possibly each saint had his own particular virtue. St Servan cured the blind by the use of holy water, St Fillan the insane, St Anthony sickly children or "back-gane bairns." The effects of the use of some wells were immediate in their consequence, one instance being that of the well at Chalder, in the island of Lewis, where immediate dissolution or convalescence was expected from a single draught. On patients drinking of a certain well in Dumfriesshire, "if they vomit they must die." The virtues of others operated more slowly, the cure of insanity taking from two days to as many weeks to become effectual. In other cases neither immersion in,

nor drinking of the waters was required ; silence, possibly a harder test of faith on the part of the women pilgrims than anything else, was all that was deemed necessary, together with walking round the water. This was found sufficient to insure convalescence in the case of St Tredwell's Loch, in the isle of Papa; and others, by passing in silence "round the Cross-kirk of Westbuster, and the loch thair of, before sun-rising, recovered their health." If the silence of the patient was interrupted, the efficacy of the charm was lost, the patient being supposed to be in a mystical state. In other cases the result depended on the rising or falling of the waters : "if they rise, convalescence follows ; if otherwise, death." If a certain worm in a medicinal spring on the top of a hill in the parish of Strathdon were found alive, it argued the survivance of a patient : and in a well of Ardnacloich, in Appin, the patient, "if he bee to dye, shall find a dead worme therein ; or a quick one, if health bee to follow."

To the saints also was ascribed the power of raising fountains at their will. "As Moses struck water from a rock, so did sanctified personages obtain it by prayer, the sign of the cross—or fountains burst from the earth where the heads of martyrs fell. A sanative fountain sprung at Holywood on the intercession of St Vinning, and remained still in repute in the beginning of the sixteenth century. 'A most agreeable fountain' rose where St Patrick was prompted by divine instinct to impress the sign of the cross on the ground ; and St Palladius was alike successful on removing a turf in the name of the Holy Spirit to obtain water for baptism. In the north a fountain sprung from the place bedewed with the blood of 'St Eric, the king.' It is said that St Paul was beheaded on a small marble column, formerly, and perhaps yet, preserved religiously under an iron grating, for the veneration of the devout, in a church near Rome. His head bounded thrice on falling to the ground, and from the spot struck each time a fountain sprung. All three were endowed with sanative virtues."

The witching hour of midnight was also regarded as a favourable time to approach some of the wells.

As the Early Christian Fathers adopted the wells from the Pagans, only changing their purpose from evil to good, so the priests of the later Roman Church wove the web of their power still tighter over the people by means of them—so tightly indeed that, stern as the Fathers of the Reformation were, they threatened, prohibited, and used stronger measures in vain to put down the worship of the long cherished fountains.

In 1579 we have a public statute prohibiting pilgrimages to wells, and in 1629 the Privy Council again denounced them in the strongest terms. "It seems not to have been enough that whole congregations were interdicted from the pulpit preceding the wonted period of resort, or that individuals humbled on their knees in public acknowledgment of their offence, were rebuked or fined for disobedience. Now it was declared that, for the purpose of restraining the superstitious resort 'in pilgrimages to chappellis and wellis, which is so frequent and common in this kingdome, to the great offence of God, scandall of the Kirk, and disgrace of his Majesteis government,' that commissioners cause diligent search 'at all such pairts and places where this idolatrous superstition is used; and to take and apprehend all suche persons of whatsomever rank and qualitie, whom they sall deprehend going in pilgrimage to chappellis and wellis, or whome they sall know thameselffes to be guiltie of that cryme, and to commit thame to waird' until measures should be adopted for their trial and punishment."

The Presbytery of Dumfries in 1614 denounced "the idolatrous well" in Troqueer parish, called St Jargon's Well. On the 5th of September 1656 the Presbytery of Dingwall passed a motion deploring the adoration of wells, and sought means to suppress them.

But all in vain, the custom had become a habit; and habits, as we all know, although easily formed, are difficult to break—the wells were still resorted to, openly if possible, by stealth if need be. In the Western Isles, where the strong arm of the law waxed faint and weak by reason of distance, we are told that multitudes flocked to a well near the Chapel of Grace, up to a very late period, and that, in the opinion of a clergy-

man of the district, "nothing short of violence could restrain their superstition."

Possibly in later eras sanctified wells were resorted to as much for amusement and traffic as for superstitious ends. In the north of Scotland young men conducted themselves 'prophanelie on the Sabbotbes in drinking, playing at futte-ball, danceing, and passing fra paroche to paroche—and sum passis to St Phitallis Well, to the offence of God and ewill of mony.' Dr Plot observes that it was usual formerly to adorn with boughs and flowers such wells as were eminent for curing distempers; on the saint's day whose name the well bore, the visitors 'diverting themselves with cakes and ale, and a little musick and danceing.' However this may be, the visits were usually conducted in a serious mood and with a serious object in view—the cure of sick children being one of the most usual. "Anxious mothers make long journeys to some well of fame, and, early in the morning of the 1st of May, bathe the little invalid in its waters, then drop an offering into them by the hands of a child—usually a pebble, but sometimes a coin—and attach a bit of the child's dress to a bush or tree growing by the side of the well. The rags we see fastened to such bushes have often manifestly been torn from the dresses of young children. Part of a bib or little pinafore tells the sad story of a sorrowing mother and a suffering child, and makes the heart grieve that nothing better than a visit to one of these wells had been found to relieve the sorrow and remove the suffering." In proof that those who still pay adoration to the wells are neither ignorant or stupid, the author just quoted¹ goes on to relate the following curious and instructive incident:—"I once talked over the subject of well-worship with an intelligent man, who was, in the opinion of his neighbours, a good Christian, but who nevertheless had shown a practical faith in the virtues of these wells by resorting to them when in sore trouble, and duly practising the necessary rites and ceremonies. When I pointed out that the localising of the power he had appealed to showed a kinship between the superstition and the religious belief of many Paganisms, he reminded

¹ Dr Arthur Mitchell, *The Past in the Present*, p. 154.

me that the religion of the Jews was exclusive in its character, and that their God had chosen them for a peculiar people, and dwelt in a special manner in Jerusalem."

Among the celebrated wells of more recent times, the pool dedicated to St Fillan in Strathfillan, famed for the cure of insanity, takes a foremost place. The means taken to rid the patient of the terrible malady are both curious and interesting, as told by Forbes in his *Kalendar of Scottish Saints*. "The ceremony was performed after sunset on the first day of the quarter O.S. and before sunrise next morning. The dipped persons were instructed to take three stones from the bottom of the pool, and walking three times round each of the three cairns on the bank, throw a stone into each; they were next conveyed to the ruin of St Fillan's Chapel, and in a corner called St Fillan's bed, they were laid on their back, and left tied all night. If next morning they were found loose, the cure was deemed perfect."

Dr Joseph Anderson, in *Scotland in Early Christian Times*, gives a still more interesting description:—The gentleman who carried off the bell of St Fillan, rode on the 9th of August 1798 from Tyndrum to the holy pool of Strathfillan, "which, towards the end of the first quarter of the moon, was resorted to by crowds of the neighbouring peasantry, who expect to be cured of their diseases. So great were its virtues, that he was told that if he had been a day or two later he would have seen hundreds of both sexes bathing in its waters. As it was, he met five or six returning, and amongst them an unfortunate girl out of her mind, who had been brought from thirty miles' distance for several moons, but had not derived the smallest advantage. A rocky point projects into the pool, on the one side of which the men bathed, and on the other side the women. Each person gathered up nine stones from the pool, and after bathing walked to a hill near the water where there are three cairns, round each of which he performed three turns, at each turn depositing a stone. 'If it be,' he says, 'for any bodily pain or sore that they are bathing, they throw upon one of these cairns that part of their clothing that covered the part affected; and if they have at home any beast that

is diseased, they bring some of the meal that it feeds upon and make it into paste with the water of the pool, and afterwards give it to the beast to eat, which is an infallible cure, but they must likewise throw upon the cairn the rope or halter with which the beast is led. Consequently, the cairns are covered with old halters, gloves, shoes, bonnets, nightcaps, rags of all sorts, kilts, petticoats, garters, and smocks.' When mad people are bathed they throw them in with a rope tied about the middle, after which they are taken to St Fillan's Church, where there is a large stone with a niche in it just large enough to receive them. In this stone trough,¹ which lies in the open churchyard, they are fastened down to a wooden frame-work, and there left for a whole night, with a covering of hay over them, and St Fillan's bell is put upon their heads. If in the morning the unhappy patient is found loose, the saint is supposed to be propitious; if, on the contrary, he continues in bonds, the case is supposed doubtful."

Another well almost equally famous for the cure of insanity is that of St Maelrubha on Innis Maree, of which Dr Reeves gives the following description in the Society's *Proceedings*:—

"But the curiosity of the place is the well of the saint; of power unspeakable in cases of lunacy. The patient is brought into the sacred island, is made to kneel before the altar, where his attendants leave an offering in money; he is then brought to the well, and sips some of the holy water. A second offering is made; that done, he is thrice dipped into the lake; and the same operation is repeated every day for several weeks; and it often happens, by natural causes, the patient receives relief, of which the saint receives the credit. I must add that the visitants draw from the state of the well an omen of the disposition of St Maree: if his well is full, they suppose he will be propitious; if not, they proceed in their operations with fears and doubts; but let the event be what it will, he is held in high esteem. The common oath of the country is by his name. If a traveller passes by any of his resting places, he never neglects to leave an offering; but the saint is so moderate as not to put him to any expense,—a stone, a stick, a bit of rag contents him."

¹ The stone trough still exists. It is apparently a stone coffin, probably of the twelfth or thirteenth century, with a round niche for the head—at least so it has been described.

That this veneration was not extinct in 1836 appears from the incumbent's report in the N.S.A.:—"On the centre of the island is a deep well, consecrated by the said St Marce to the following purpose: To this same well are dragged, *volens nolens*, all who are insane in this or any of the surrounding parishes, and after they have been made to drink of it, these poor victims of superstitious cruelty are towed round the island after a boat by their tender-hearted attendants." Loch Maree is 18 miles long and $1\frac{1}{2}$ mile broad on an average. The greater part of it is 60 fathoms deep, so that it has been never known to freeze during the most intense frosts.

At Struthill we have another well famous for curing insanity, and offerings were still cast into it in the year 1723. The chapel hard by was ordered to be demolished by the Presbytery of Auchterarder in 1650, because of the rites practised in it, but that had little, if any, effect in checking the adoration of the well, for we find that in the year 1668 several persons testified before the Presbytery of Stirling that, having carried a woman thither, "they had stayed two nights at the house hard by the well; that the first night they did bind her twice to a stone at the well, but she came into the house to them, being loosed without any help; the second night they bound her over again to the same stone, and she returned loose, and they declared also that she was very mad before that they took her to the well, but since that time she is working and sober in her wits." This well, according to the N.S.A., is now called the Straid Well; and the incumbent, writing in 1845, states that it was "much frequented once as effectual in curing the hooping-cough. Not further back than a few weeks ago a family came from Edinburgh, a distance of nearly 60 miles, to have the benefit of the well. As a piece of useful information, we may add, that the water must be drunk before the sun rises, or immediately after it sets, and that out of a 'quick cow's horn,' or a horn taken from a live cow; which indispensable horn is in the keeping of an old woman who lives near by the well."

Dr Mitchell, in *The Past and Present*, adds his valuable testimony that the wells are still adored in many parts of the country, and states that the adoration may be encountered in all parts of Scotland, from

John O'Groat's to the Mull of Galloway. "The bush above Craiguck Well, in the parish of Avoch, was covered with rags when I was there; and I have seen at least a dozen wells in Scotland which have not ceased to be worshipped." Many of the wells dedicated to "Our Lady," i.e., St Mary (Virgin Mary), and to St Bridgid, the Mary of Ireland, were famous for the cure of female sterility, which, in the days when a man's power and influence in the land depended on the number of his clan or tribe, was looked upon as a token of the divine displeasure, and was viewed by the unfortunate spouses with anxious apprehension, dread, doubt, jealousy, and pain. Prayer and supplication were obviously the methods pursued by the devout for obtaining the coveted gift of fertility, looked upon, by females especially, as the most valuable of heavenly dispensations; and making pilgrimages to wells under the patronage of the mother of Our Lord would naturally be one of the most common expedients. Among many others resorted to from the supposed efficacy of their waters in promoting this evidence of celestial favour, I may mention "Our Lady's Well" at Whitekirk, East Lothian, and "Our Lady's Well" on the Island of May, near the chapel dedicated to St Adrian. The last seems to have been frequented from an early period, and to have attained great fame. Some curious stories are told about this well; one of the most curious, too long to quote here, will be found in *Historical Sketches of the Island of May*. This consecrated fountain was guarded by a priest set specially apart for the purpose, and only one patient was admitted at a time. The revenues derived from the sale of its waters seem to have been very considerable, and belonged entirely to the church on the island. It would seem, however, that the waters were not always effectual in curing the disease, in which case the despotic lords of the poor unfortunates very often devised means to sever the sacred knot that bound them together; and too often, in those days of debased and perverted justice, the manner of getting rid of the victim was not too strictly or too often called in question; then, after the tree that "bare no fruit" was cut down, the survivor took to himself a more "fruitful vine." This well is still spoken of in the east of Fife, all round that por-

tion of the coast facing the May; and "wherever, amongst the constantly unfolding secrets of futurity, a human being of dubious parentage exhibits itself on the stage of existence (a circumstance by no means so rare as a Christmas butterfly), the common remark is still familiar to all, that it has come from the island of May." Wells dedicated to other saints seem to have been famed for the cure of sterility, St Fillan's Well, in the parish of Comrie, being one.

From my list of wells, it will be seen that the number dedicated to the Virgin Mary must have been very great, far exceeding any other saint. Long ago, we know that far greater honour was paid to the mother of "Our Lord" than to God himself; and what the "Juno Lucina" was to the ancients she would seem to have been to the Christians of the Middle Ages in Europe, and to have been invoked in a similar manner. With what dread the females of the sixteenth century in Scotland viewed sterility may be gathered from a perusal of Hector Boethius in his *Scotorum Historia*. He tells us that the tomb of Vanora, the queen of Arthur, who died barren, and was buried at Meigle, "was shunned as a pestilential spot"—that none willingly went near it, or looked upon it, and that mothers early taught their daughters the prejudice.

To an incident which showed that the faith and belief in the healing virtues of the wells is still strong, the writer was but a few months ago an eye-witness. While walking in the Queen's Park about sunset, I casually passed St Anthony's Well, and had my attention attracted by the number of people about it, all simply quenching their thirst, some possibly with a dim idea that they would reap some benefit from the draught. Standing a little apart, however, and evidently patiently waiting a favourable moment to present itself for their purpose, was a group of four. Feeling somewhat curious as to their intention, I quietly kept myself in the background, and by and by was rewarded. The crowd departed, and the group came forward, consisting of two old women, a younger woman of about thirty, and a pale, sickly-looking girl,—a child of three or four years old. Producing cups from their pockets, the old women dipped them in the pool, filled them, and drank the contents. A full cup was then pre-

sented to the younger woman, and another to the child. Then one of the old women produced a long linen bandage, dipped it in the water, wrung it, dipped it in again, and then wound it round the child's head, covering the eyes, the youngest woman, evidently the mother of the child, carefully observing the operation, and weeping gently all the time. The other old woman not engaged in this work was carefully filling a clear flat glass bottle with the water, evidently for future use. Then, after the principal operators had looked at each other with an earnest and half solemn sort of look, the party wended its way carefully down the hill.

I now come to those wells I have personally visited and made drawings of, the first being that of

ST PETERS,

Houston, Renfrewshire.

The drawings of this well (figs. 1, 2) were made in May 1882. It stands to the left of a cross road leading from the village of Houston, and about a quarter of a mile distant from the village, close on $3\frac{1}{2}$ miles from the railway station of Houston, and 3 miles or thereby from that of Houston Crosslee. When I visited it the approach was rendered somewhat difficult by the marshy state of the ground. The spring is at the foot of a gently sloping bank, and is not, now at all events, of any great strength; this, in all probability, is due to field drainage; it also seems to be entirely neglected and uncared for. Close by a rivulet called "St Peter's Burn" runs murmuring down the hill, and receives the water from the spring as it passes. The spring is covered with a small oblong building about 5 feet 6 inches long and 4 feet 3 inches wide, having a saddle-back roof. With the exception of the third visible row of stones forming the sides of the structure, the stones are all of moderate size, but this row consists of two only on each side, there being a long stone extending from the front, backwards, fully two-thirds of the entire length; the smaller stones completing the length form headers, as it were, to the sides, and meet together at the end; thus these four stones complete the circuit of the

whole building, and effectually bind together the side walls below, and form an excellent level eaves course for the roof to start from, which, naturally, the builders made of smaller material, having to cut the stones to the shape of a pointed arch inside, and a fixed slope outside. The first course of roof stones completely form of themselves the pointed arch inside, the joint meeting exactly in the centre, the next course forming a covering to these joints, and extending full across the top. This covering

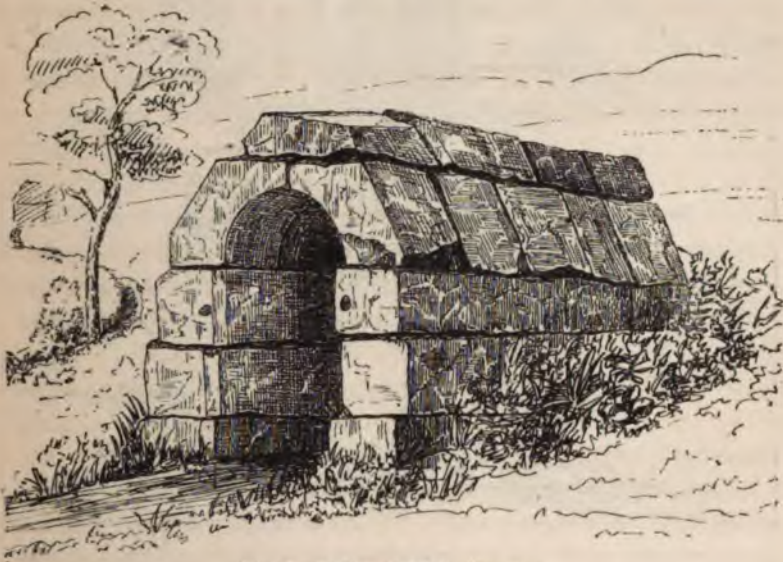


Fig. 1. St Peter's Well, Houston.

or second roof course completes the structure as it is at present, but it seems very possible that in times past another course existed, in all probability a long single stone to cover the cross joints of the second course, and so effectually prevent the rain, leaves, and other foreign substances from getting in to destroy the purity of the spring. The inner edge of the side stones forming the entrance have had a splay taken off them, but the arris of the arch remains untouched. The width of the opening

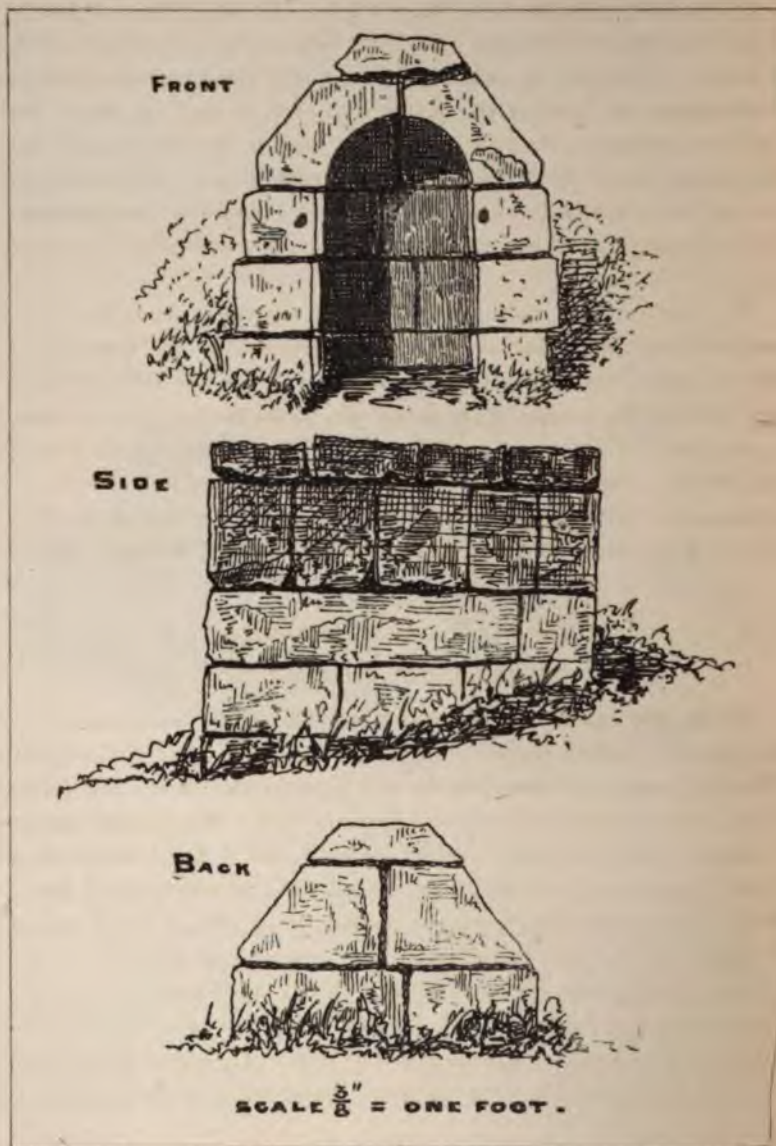


Fig. 2. St Peter's Well, Houston.

is 2 feet, and the height, from the water level to the spring of the arch, 2 feet 8 inches, and from the water level to the crown of the arch 3 feet 9 inches. The hole in each top stone of the sides suggests either a covering-gate in front or the presence of cups, secured by chains, for drinking purposes. No mortar has been used in its construction, and the stones, which are of freestone, are roughly hewn. The setting of the soil has slightly disjoined the structure, but if left alone it seems likely to endure wind and weather, storm and sunshine, for a long time to come.

The spring when visited was full of vegetation, and the water undrinkable. According to the *Old Statistical Account*, Houston, in ancient times, was called Kilpeter, *i.e.*, *Cella Petri*, the tutelary saint. The writer of the account of the parish also makes the following reference to the well :—"There is a well at a little distance to the north-west of the church, called St Peter's Well ; it is covered with a wall of cut free-stone arched in the roof, from which flows a plentiful stream of excellent water ; and a stream of water passing hard by is called St Peter's Burn."

THE WELL OF THE HOLY ROOD,
Stenton, Haddingtonshire.

Within 200 yards of the old church and village of Stenton, and close by the road leading thence to Dunbar, stands the Rood Well (fig. 3). The path from the old church to the well is paved with stone—this points to an extra amount of traffic to and from the well. It is a small circular building, 3 feet 10 inches internal diameter, and 5 feet 4 inches over, with a door facing north-west 2 feet 1 inch wide, present height 3 feet 7 inches, height from step, found by probing the ground, 5 feet 5 inches, thickness of the wall 9 inches, with a conical roof of stone in five courses, finished with a flowered finial, I should say of fourteenth century date, on the top. The masonry is a very excellent piece of workmanship, and is in a state of excellent preservation. The entrance jambs are checked and prepared to receive a door. Each course of the conical roof

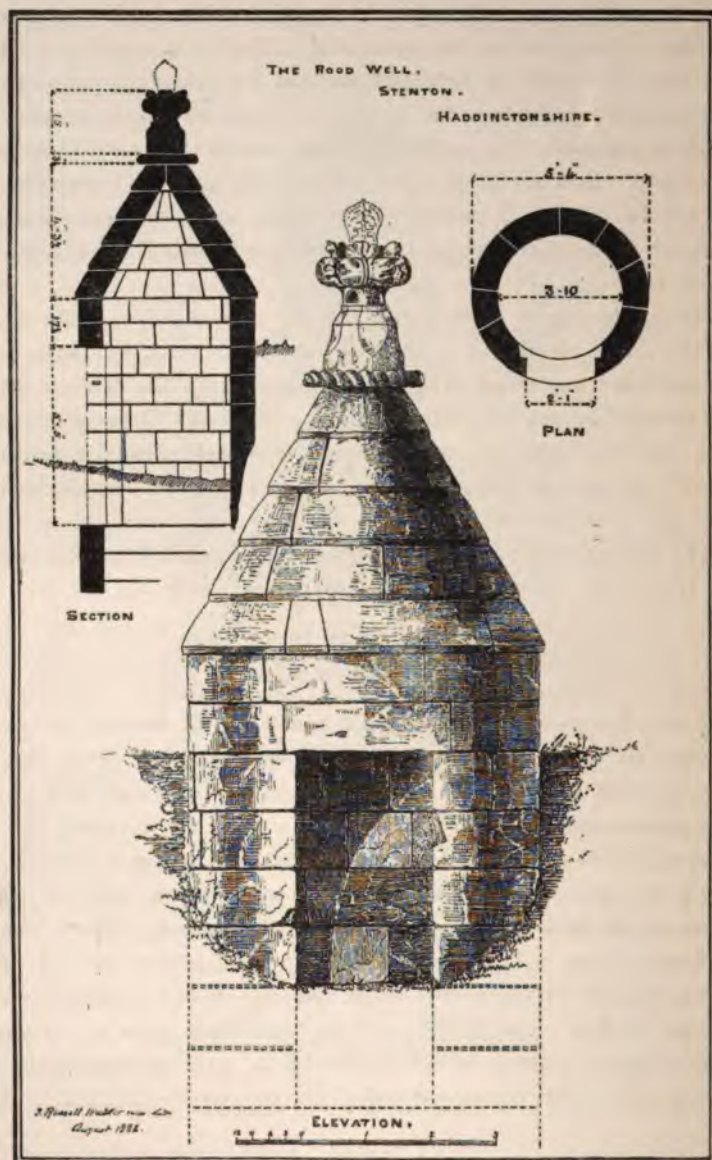


Fig. 3.

is slightly cambered, or rounded, externally, and starts with a small fillet or drip. What I would call the neck moulding of the finial is cut into the shape of a rope, and the base of the finial immediately above is square, and set on the angle in so far as regards the direction of the door, the upper part is then carried to the octagon by means of a splayed cove, and is gradually formed into an appropriate starting point for the flowered portion, by means of a receding splay and fillet; the finial in the lower and more spreading portion consists of four leaves of the usual conventional treatment in this period of Gothic art. The upper part, as indicated by dotted lines on the drawing, has been broken away. The stones are all carefully hewn and squared, and show more care in building than the masons of the time usually bestowed on works of far greater importance.

The well has long been filled up, and enclosed by a stone wall, owing, as I was told, to a cow in the neighbouring field falling into it, and causing, as one can well understand, extraordinary difficulty in getting her out.

The ground slopes from the entrance up towards the road, so that at the back of the well, next the road, it is higher by about 3 feet 6 inches. When visited in August 1882, the place was guarded by a luxuriant crop of nettles. It is kept carefully pointed, but is otherwise neglected.

The *New Statistical Account* says that the well "is surmounted by the form of a cardinal's hat, and there is a legend that the tenure of Beil depends upon the keeping on of this hat." I can only say that it would require a singular amount of argument to convince me, as an architect, that this very ordinary Gothic finial was ever meant to represent a hat, sacred, secular, or profane. It is also stated that this finial does not belong to the well, but was taken from the church and put on top of it at a comparatively recent period; this may be so, and in that event it is possible that the conical roof finished with a round knob or ball on top, and perhaps a cross of metal as shown in the sketch (fig. 4), and representing the far-famed cross of the "black rood." The well inside the church of St



Fig. 4.

Mark's, Venice, is so finished, the roof also being conical, but octagonal, not circular. Speaking architecturally, this is without doubt one of the most interesting wells now left us.

ST NINIAN'S WELL,
Stirling.

I visited this well in the month of September 1882, and must confess to being considerably disappointed with it from an architectural point of view. Mr T. S. Muir, in his *Characteristics of Old Church Architecture*, mentions it as "a large vaulted building with a chamber above it, which is supposed to have been a chapel." From this notice I was led to think something of interest would be found in the chamber; but as will be seen by the drawing (fig. 5), it is utterly destitute of any feature worthy of particular notice. On looking at the surroundings, however, which are all modern, and mostly new houses and streets in course of erection, I came to the conclusion that at no distant date the well was doomed, and that consequently I had better make a correct drawing of it.

The lower chamber measures 16 feet by 11 feet 1 inch, and is covered with a vault running from end to end, measuring from floor to springing 2 feet 9 inches, and from floor to crown of arch 6 feet. At the end where the spring rises there is a square recess 1 foot 9 inches high and 1 foot 7 inches wide and 17 inches deep; and at the other end two recesses, the largest measuring 2 feet 7 inches in height, 1 foot 4 inches wide and 1 foot 4 inches deep, the other 8 inches high, 8 inches wide, and 8 inches deep. To what purpose these have been put I have formed no idea; they are on an average 12 inches from the floor to the sill. The side walls are 2 feet 9 inches thick, and the end gable 3 feet; the other gable, between the well chamber and the adjacent building, being about 2 feet 3 inches. The room above is the same size as the vaulted chamber below, and is divided by timber partitions to form a dwelling-house. There is an ordinary fireplace and press in the gable; the press, however, does not go down to the floor, but is simply a recess or "aumbry," such as we see in old Scotch houses.

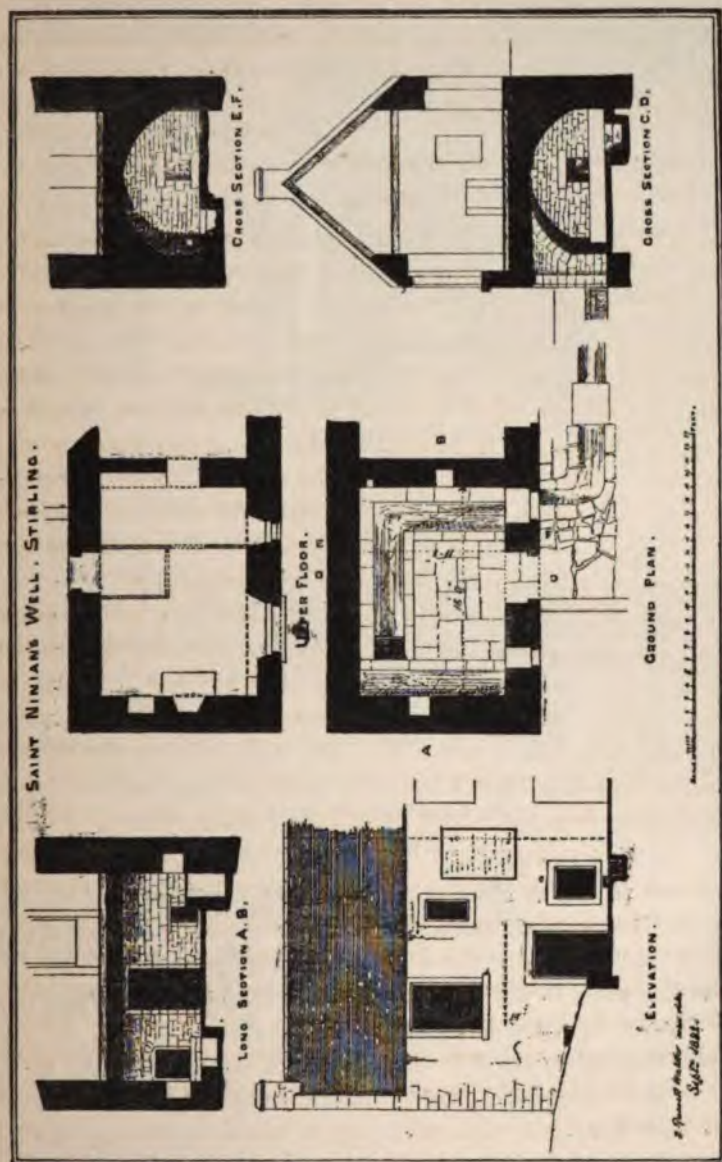


Fig. 5.

The roof seems to have been renewed at no distant date, although some of the rafters are without doubt home-grown. The ground rises rapidly to the house, so that the entrance door to the house is level with the top of the vault; the door is simply splayed in the Scotch manner, with a square lintel over and a relieving arch inside. The door to the well chamber is also splayed, and in like manner the windows; the largest window has been altered, and a new projecting sill put in.

At present the well is used for washing purposes, and must have been so for a considerable length of time, if we may judge from the table of rates affixed to the building; and a channel has been formed down one side and along the bottom end to carry away the water, the floor being paved with stones. The vault inside is roughly dressed, very little labour seemingly having been bestowed upon it.

In the N.S.A. it is suggested that the chamber was used as a bath, and it also states that "it is celebrated for its copiousness and purity. It is a hardish water, but of low specific gravity, and much used for washing. It has been calculated that were all the water proceeding from this spring forced into the pipes that supply the town, it would afford every individual not less than 14·03 gallons per twenty-four hours. Its temperature is very cold, and it exhibits muriate of lime and sulphate of lime. It is also much used for brewing."

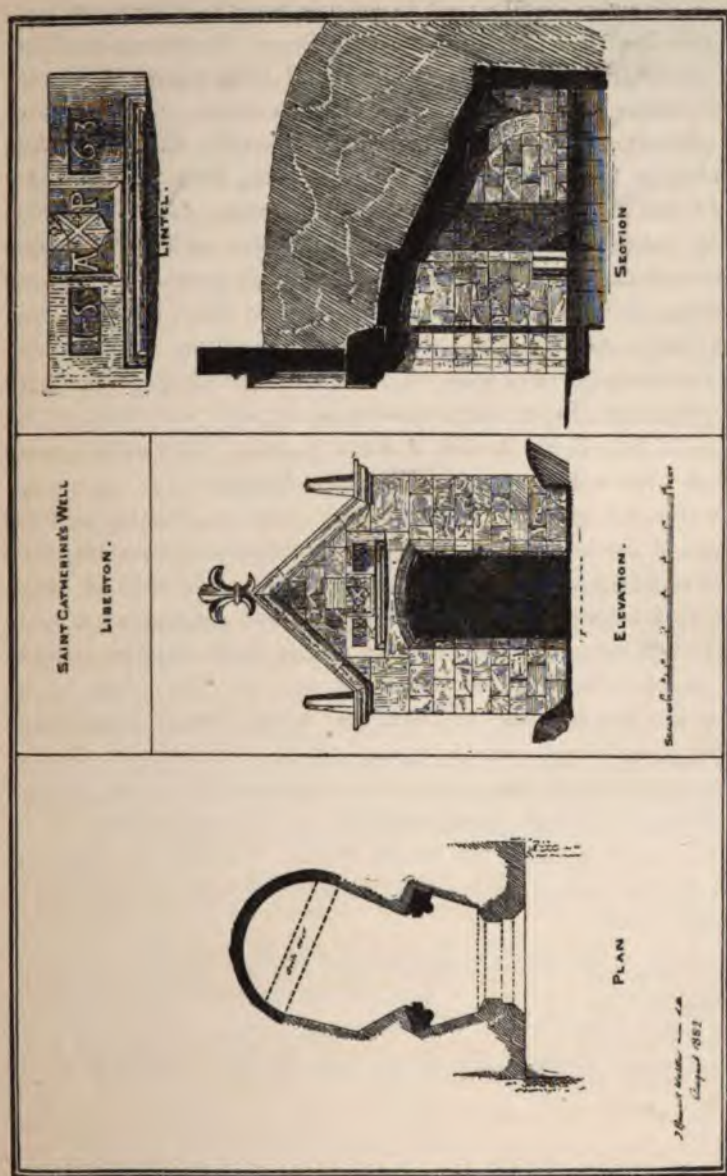
Externally the building is rough cast, or, in Scottish phraseology, "harled."

ST CATHERINE'S WELL, *Liberton.*

This well (fig. 6) is about three quarters of a mile south from the village of Liberton, near the site of the chapel erected by St Margaret in honour of St Catherine, and now stands in private grounds.

According to Dr Daniel Wilson, "the marvellous history of this well's origin rests on very early authority."

Hector Boece gives the following account of the well and chapel:—
"Ab hoc oppido plus minus duobus passuum millibus, fons cui olei guttæ
mutant scaturit ex vi, ut si nihil inde collegeris nihilo plus confluat



GUYOT & WOOD, SC.

Fig. 6.

quantum vis autem abstuleris nihilo minus remacat. Nattam esse auint effuso illic oleo Divæ Catherinæ, quod ad Divam Margaritam, ex Monte Sinai adferebatur. Fidem rei faciunt Fonti nomen Divæ Catherinæ inditum, atque in ejusdem honorem sacellum juxta, Divæ Margaritæ jussu ædificatum. Valet hoc oleum contra variâs cutis scabrics." And Bellenden, in his *Translation*, vol. i. p. xxxviii., Edin. 1821, says:—"Nocht two miles fra Edinburgh is ane fontane dedicat to Sanct Katrine, quhair sternis of oulie springis ithandlie with sic abundance that howbeit the samin be gaderit away, it springis incontinent with gret abundance. This fontane rais throw ane drop of Sanct Katrine's oulie, quhilk was brocht out of Monte Sinai, fra her sepulture, to Sanct Margaret, the blissit Quene of Scotland. Als sone as Sanct Margaret saw the oulie spring ithandlie, by divine miracle, in the said place, sche gart big ane chapell thair in the honour of Sanct Katrine. This oulie has ane singulare virtue agains all maner of kankir and skawis."

"On the 8th of July 1504, James IV. made an offering 'in Sanct Katrine's of the oly well.'" This king seems to have been singularly fond of making pilgrimages to chapels and wells. "James VI., on his return to Scotland in 1617, paid it a visit, and commanded it to be enclosed with an ornamental building, with a flight of steps to afford ready access to the healing waters; but this was demolished by the soldiers of Cromwell, and the well now remains enclosed with plain stone work, as it was partially repaired at the Restoration." This reconstruction or restoration seems to have in its turn fallen into a state of dilapidation, as Mr Muir speaks of it being in that state in 1861.

It was anciently called the "Balm Well." The well was long celebrated for the cure of cutaneous diseases, and it is still visited for its medicinal virtues.

The nuns of the neighbouring convent of St Catherine's de Sienna are said to have proceeded annually in solemn procession to visit the chapel and well in honour of the saint.

The peculiar characteristics of the well are thus described by Dr Turner:—

"Petroleum and bitumen, under these names are known certain natural tarry matters, more or less fluid, which have evidently resulted from the decomposition of wood or coal either by heat or spontaneous action under the surface of the earth."

The following analysis was made by Dr George Wilson, F.S.A. :—
"The water from St Katherine's Well contains after filtration, in each imperial gallon, grs. 28·11 of solid matter, of which grs. 8·45 consist of soluble sulphates and chlorides of the earths and alkalies, and grs. 19·66 of insoluble calcareous carbonates."

The well is now carefully protected and looked after. The oldest remaining portions are shown coloured black on the plan, and the more recent additions by hatching, the back portion is supported by an arched stone as seen by the section (fig. 6). The portions left of the old entrance are moulded, and seem to point to the work having been constructed in the Gothic style; whether this is the remains of the entrance to the building put up by orders of James VI. or not there is nothing to show, but it seems very probable. The lintel built in over the present entrance door bears the date 1563, in shallow side panels, the centre panel containing a shield charged with the Cross of St Andrew, and having as supporters the letters A and P; the moulding on the lower edge does not in any way correspond with the old jambs of the former entrance, above referred to; the lintel is convex in shape lengthwise, and is 3 feet 8 inches long and 1 foot 2 inches deep. It may possibly have formed part of the former well structure, but as yet I have found no information to enable me to determine.

The fleur-de-lis finial on the apex of the gablet is also much older than the present front.

The oldest portion inside is circular in shape, and is built in regular squared courses.

The water varies in height with the season, and the oil seems to bubble up in an intermittent manner. From the line of the arch supporting the older portion, the roof is composed of long slabs of stone resting on the sides and on the top of each other, banked over with earth covered with shrubs.

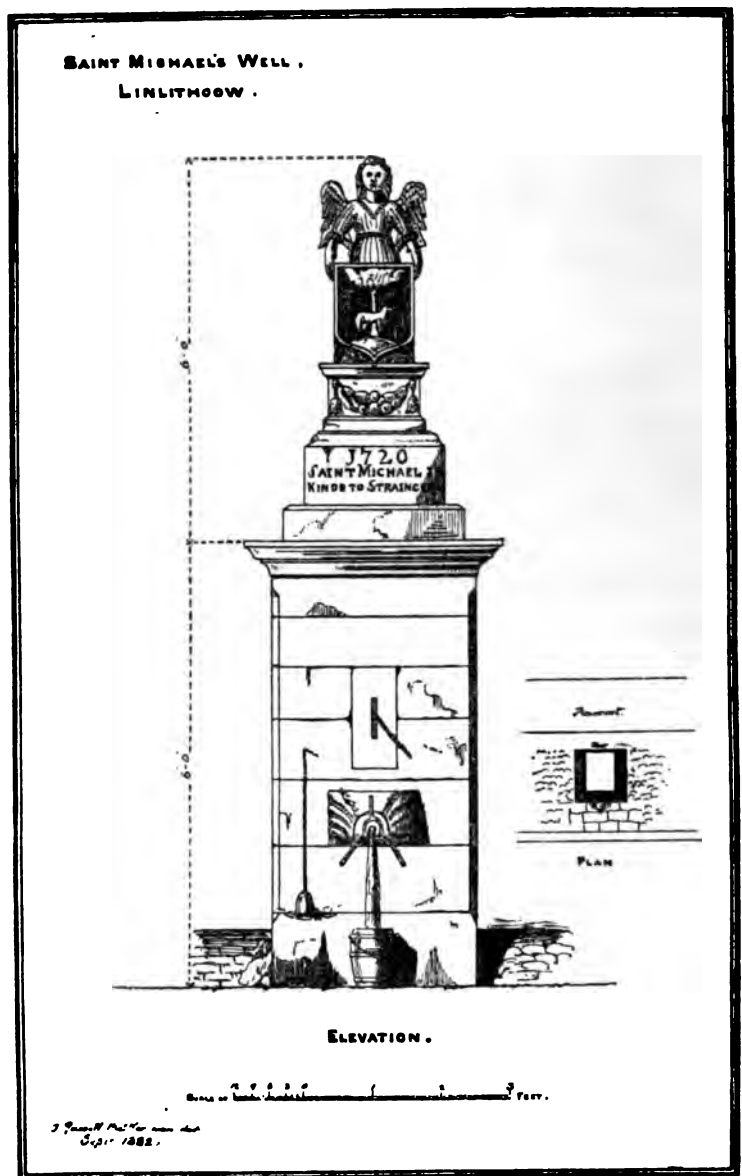


Fig. 7.

S. MICHAEL'S WELL,

Linlithgow.

The building covering this well dates only from 1720, as the drawing (fig. 7) shows ; nothing more seems known about it.

It is conjectured that the statue was taken from the Cross Well when restored about that date, and placed here to represent St Michael, who is the patron saint of Linlithgow Church. Why the saint should bear the shield showing the arms of the burgh (a corrupt rendering by the way), I don't know ; neither have I been able to obtain any information as to the legend borne by the well that "Saint Michael is kinde to straingers." With the exception of the statue, which is undoubtedly of much earlier date than 1720, the structure shows the utter absence of architectural knowledge, especially Gothic, characteristic of the last century in Scotland.

SAINT MARGARET'S WELL,

Formerly at Restalrig, now in the Queen's Park.

This little hexagonal building (fig. 8) is certainly the most beautiful and appropriate covering of any well now left in Scotland.

It is to be regretted that the actual spring dedicated to the saint is lost to us by the march of modern events, but fortunately we are in possession of authentic descriptions and drawings of the structure as it stood over the original spring. It attracted the attention of Billings, and although one of the minor antiquities of the country which he seldom includes in his valuable work, *The Baronial and Ecclesiastical Antiquities of Scotland*, its beauty apparently struck him, and in vol. ii. he gives a fine drawing of it and a description, part of which is worth repeating here. He says:—"Alterations of various kinds have so changed the character of the place where this rich fountain gushes forth, that those who have been familiar with it of old would find difficulty in discovering the spot where it stands, and few will be able to observe its architectural beauties. In former times a mossy bank, rising out of a pleasant meadow, covered the

little pillared cell, and the surplus water, running out in a slender rill, fell into a pure mountain stream fed from the springs of Arthur's Seat. The spot, though close to two large towns, was solitary, and the most conspicuous objects in the neighbourhood were the range of Arthur's Seat and Salisbury Crag, with the ruins of St Anthony's Chapel on the one side, and those of the old church of Restalrig on the other. For some time the streams from Arthur's Seat have been made the means of irrigating the surrounding meadows with the contents of the Edinburgh sewers. It is into this fetid marsh that the waters of St Margaret's Well now run. For many years its unpleasant position had made this a spot seldom visited; but, even since the drawing for the present engraving was taken, a huge mass of storehouses and other buildings connected with the North British Railway have been squatted right over the well. So much respect has been paid it that the architecture has been left entire, and a long narrow vault, only broad enough to allow one person to pass along, has been constructed to give access to the fountain from the exterior. This long passage is perfectly dark, so that the architecture of the old cell cannot be seen without artificial light. Some centuries hence, if they last so long, it may puzzle those examining the remains of the railway buildings to find this remnant of an older age of architecture imbedded like a fossil in the ruins." So wrote Billings, in his day little dreaming of its removal. Mr R. Rowand Anderson, architect, F.S.A. Scot., also gives a careful and reliable drawing of it in the short-lived and long-extinct *Building Chronicle*, in the number for January 1, 1856, and in his description states "it stood at the side of the ancient cross road which led from Holyrood to Restalrig; on the top grew an elder tree, and in front of it stood a little thatched cottage, inhabited a great many years ago by a man who carried the waters of the well to Leith for sale."

My drawing is taken from the well as it now exists in the Queen's Park, and several differences between the drawings by Mr Billings, Mr Anderson's, and my own are worth mentioning; the alterations having evidently been made when the removal took place.

In the setting of the base Mr Billings agrees with Mr Anderson as well as the position of the pillar, which Mr Anderson describes as being "about six inches off the centre of the hexagon, and the base does not face the entrance, although the gurgoil does." Both these points are clearly shown by Billings, although he is wrong in showing the intake of the base straight instead of curved; now, however, it is exactly in the centre, and the base faces the entrance.

The next point of difference is that the drawings by these gentlemen show two holes in the centre pillar,—one hole about the centre of the stone immediately below the gurgoil, and the other near the top of the lowest stone. In these must, I think, have been fixed the chains holding one or more drinking-cups. In rebuilding these stones have been turned round so that the holes now face the back.

Mr Anderson also speaks of "the two openings in the opposite faces of the hexagon" as having been for the purpose of giving light; "for in the mausoleum of the Logans of Restalrig, which is a copy of St Margaret's Well, there are similar openings similarly placed." No openings are shown by Billings in his drawing, and they do not exist in the well now.

Wilson, in his *Memorials of Edinburgh*, describes it as being an octagon on plan, but this is a mistake, it being hexagonal, with a pillar in the centre supporting a groined vault, with moulded ribs and ornamental bosses at the various intersections—as Billings says, "a simple plan," but nevertheless one of great beauty. Two wall ribs and two groin ribs come down in each angle of the hexagon, where they are received by corbels. The springing of the centre rib from the pillar is covered with a gurgoil or grotesque head, from which the water flows. I show on my drawing several mason marks; two of them, marked 1 and 4, are on the pillar. No. 2 is cut on the face of each corbel, and No. 3 is on the upper or curved portion of the base to the pillar. I have recently been making a collection of mason marks, and found on the west tower of Holyrood Abbey Church the mark No. 2 on the well. This is rather a curious fact, and suggests one of two things—first, that the same marks descended from generation to generation; or, second, that the two structures were

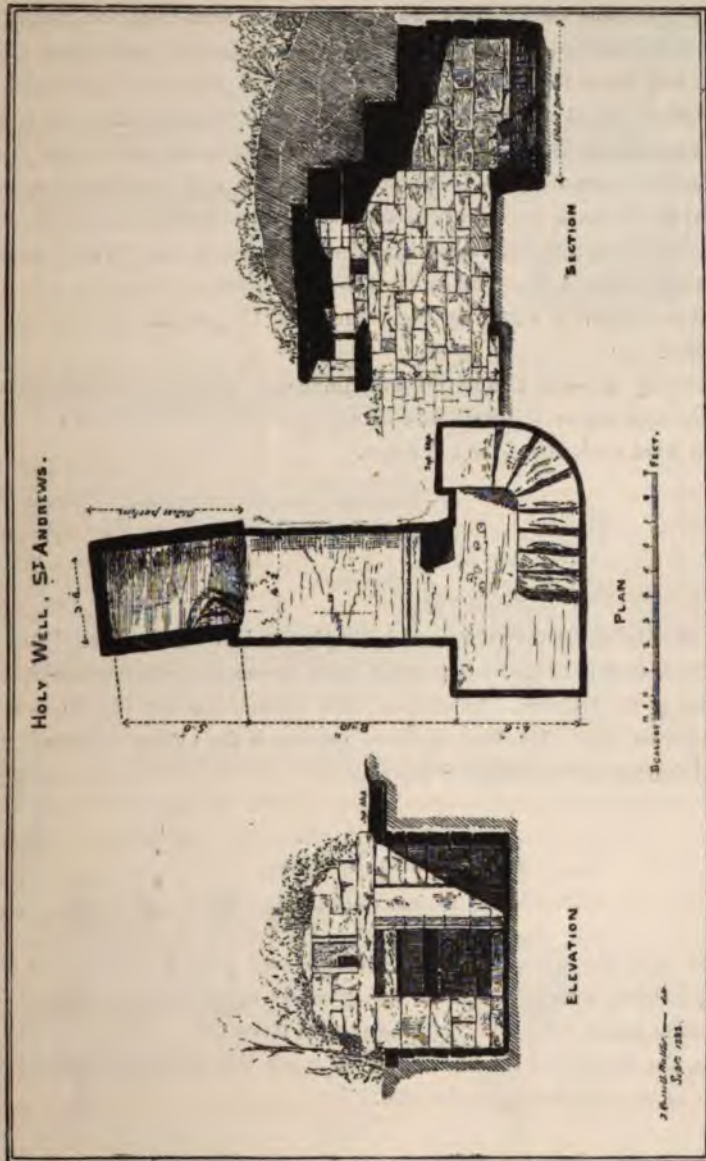


Fig. 9.

built at the same time. Now, we know that the west tower of Holyrood is in the Transition style, from Romanesque to Gothic, and dates *circa* 1170, and there is nothing in the character of the well to forbid the assumption that it is of that date also. Is it not possible, then, that this well was built at that time by David I. to commemorate his rescue from the hart that, according to Bellenden, "fled away with gret violence, and evanist in the same place quhere now springs the rude well?" In that view, doubtless, the well was originally dedicated to the "Holy Rood," and not to Queen Margaret until 1251 or thereby, when she was admitted to the roll of saints by Pope Innocent IV., on the translation of her relics.

Curiously enough, I find on examining the six-inch Ordnance map that the spot where the well now stands is marked "St David's Well," but on what authority I do not know.

HOLY WELL,

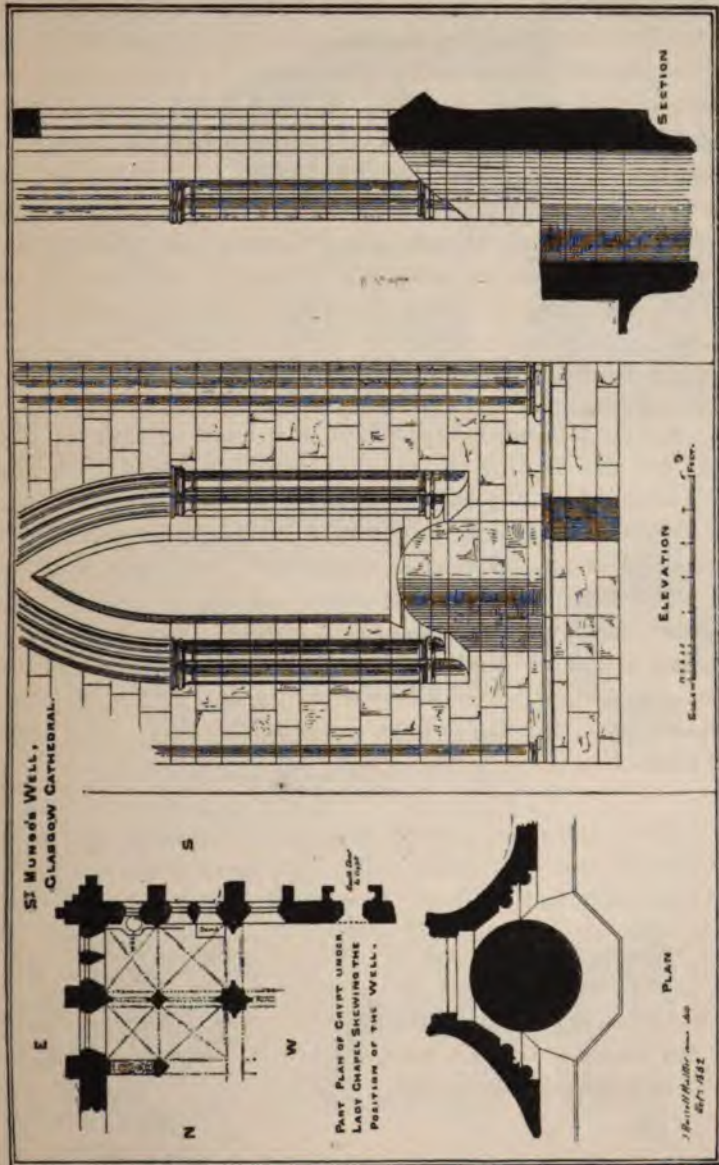
St Andrews.

On the Ordnance map this well is simply marked "Holy Well," and I have been unable to find out to what saint it was dedicated, probably St Regulus or St Andrew. As will be seen by the drawing (fig. 9), it is a very curious one. The back or inner portion is the oldest. There is no special feature in it calling for description.

ST MUNGO'S WELL,

Glasgow Cathedral.

This well (fig. 10) is curiously situated, and points, I think, to the spring having been well known and possibly regarded with feelings of veneration before the building of the present structure. It is exceedingly simple, the window at the back being as much the result of accident as design in its relationship to the well.



GUTH & WOOD SC.

Fig. 10.

BONAR'S WELL,

Ratho.

This is a well of simple structure, a little south from the village, on the road from Ratho to Dalmahoy. It is now filled up and unused. So far as I can learn, it was once very celebrated, but its history rests entirely, so far as I have been able to find, on local tradition now. (See fig. 11.)

THE LADY WELL,

Ladywell Street, Glasgow.

This well has been restored and rebuilt, as it bears. I have not been able to find any drawing showing the original structure. I cannot possibly imagine that the present building (fig. 11) bears any resemblance to the former, it being now strictly classic in design and detail. The cross and urn are of cast metal. "Lady Love" or "Lady Well," so called after a fountain at the bottom of the Craigs (now included in the Necropolis), sacred in Popish times to the Virgin.—*Merchants' House of Glasgow*, p. 538.

WELL (Name unknown),

Letham Farm, Mid-Calder.

This, although exceedingly simple in design, is a pleasing and appropriate structure, well and carefully built. It is placed at the junction of two old kirk roads, and stands in the acute angle of the junction; the water is very cool and clear, with a strong flavour of rotten eggs. It seems to go by no name in particular now, although the villagers in Mid-Calder state that it, once on a time, brought visitors from all parts of the country. It is about a mile and a half from the village. (See fig. 11.)

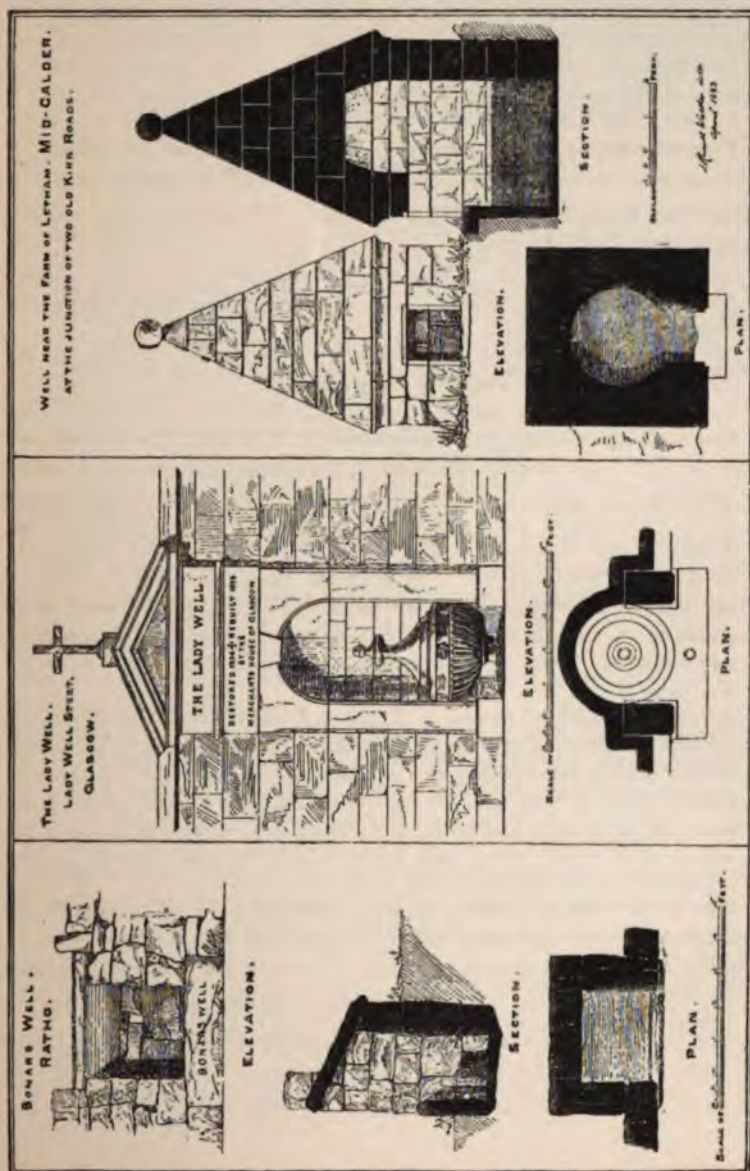


Fig. 11.

water, never dries ; *Fortingull*, Bredus's Well ; *Auchtergaven*, marks site of Logiebride church ; *Balmerino*, Bridies Well ; *Kilbarchan*, also St Bride's Burn ; *Peterculter*, Aberdeenshire.

ST BRAUL—*Stracathro*, Forfarshire.

ST CATHERINE—*Stoneykirk*, influenced by the ebb and flow of the tide ; *Low Dromore*, Kirkmaiden ; *Old Luce*, on the edge of the highway, opposite the Abbey ; *Fyvie* ; *Alvah*, Banffshire. *Shotts*—"There is upon the great road, immediately below the church, a copious fountain of excellent water, known by the name of the Cat's or Kate's Well. This name is no doubt got from St Catherine, to whom the church was dedicated."—*O.S.A. Southend*, Argyle—"Near the ruined chapel of St Catherine's, on a burn in a secluded glen, 7 miles south-west of Campbeltown, a cemetery and a spring aljoin it, and the latter, till a comparatively recent period, had the reputation of a 'holy well,' and was frequented by invalids."—*O. G. of S.*, vol. i. p. 254. *Liberton*—Since reading my paper, I have found the following interesting note in *Seton's Convent of St Catherine of Sienna*—"The entrance to the well is surmounted by a semicircular stone—probably a lintel from the adjoining church of St Margaret—bearing the date 1563, and a shield charged with a saltire and other indistinct figures between the letters A. P. But for the saltire I should have felt disposed to regard the letter P as indicative of *Preston*, the surname of the former proprietors of Craigmillar and other lands in the neighbourhood of St Catherine's, by one of whom, however, the saltire may have been introduced either as a national or a religious device." *Figg*—"In the village on the south side of this isle there is a well called St Katherine's Well ; the natives have it in great esteem, and believe it to be a *catholicon* for diseases. They told me that it had been such ever since it was consecrated by one Father Hugh, a Popish priest, in the following manner :—He obliged all the inhabitants to come to this well, and then employed them to bring together a great heap of stones at the head of the spring by way of penance. This being done, he said mass at the well, and then consecrated it. He gave each of the inhabitants a piece of wax candle, which they lighted, and all of them made the *Dessil* of going round the well sunways, the priest leading them, and from that time it was accounted unlawful to boil any meat with the water of this well. The natives observe St Katherine's anniversary ; all of them come to the well, and having drank a draught of it, they make the *Dessil* round it sunways—this is always performed on the 15th day of April."—*Martin*.

ST CAROL—*Ruthren*.

ST CATTAN—*Kilcattan Bay*, Island of Bute.

- ST COLMAN**—*Killearn*; *Cambusnethan*; *Alvah*, on farm of Tippetty—Name occurs in a charter dated more than 500 years ago. It is remarkable for its magnitude and excellence; throws out 27 imperial gallons per minute; and, when tried by the hydrometer, appears only a shade heavier than water distilled.
- ST COWSTAN** or **CONSTANTINE**—*Garrabost*, near St Cowstan's church—"Never boils any kind of meat, though it be kept on fire a whole day."—*Martin*.
- ST CONAN**—*Dalmally* (Tiobairt Chonnain).
- ST COLUMBA**—*Eilan-na-Naoimh*, Garveloch Isles; *Eigg*; *Kirkcolm*—"Strangers will find, not far from Corswell lighthouse, a bubbling spring of pure water on a grassy bank not far above high-water mark, which bears the name of St Columba's Well. Pious Roman Catholics who visit the well quaff its waters with some degree of reverence, and a tradition of sanctity still lingers about it. There is every reason to suppose that it is the Cross Well or Holy Well, which has led to the locality being called Crosswell, Corsewell, or Corswell. The association of St Columba's name with the well is not improbable; the name of the parish—Kirkcolm—is but a corruption of St Columba's kirk."—Conway, *Holy Wells of Wigtown*. *Colonsay*, on Balnahard Farm, north shore of Kiloran Bay; *Iona*; *Birse*, on Mount Garriach; *Carlaverock*, near chapel; *Urquhart* and *Glen Moriston*, parish of, in Inverness-shire, near Invermoriston Inn, on the river Moriston; *Ardslignish*, Ardnamurchan; *Portsoy*, Banffshire, near site of chapel; *Alness*, Roskeen, near St Ninian's chapel; *Menmuir*, Kincardineshire.
- ST CLEMENT**—*Musselburgh*; *Skye*, in the parish of Strath, called Tobar Chleamen.
- ST CUTHBERT**—*Strathtay*; *St Boswells*.
- ST DAVID**—*Langholm*; *Edinburgh*; *Newbattle*; *Weem*, parish of, near Aberfeldy.
- ST DARERCA**—*Derlasse*.
- ST DEVENICK**—*Methlick*.
- ST DOMINÆ**—*Barr*, parish of—Is still approached by a regularly built archway
- ST DONAN**—*Auchterlees*. *Eigg*—"St Donnan's Well, which is in the south-west end, is in great esteem by the natives, for St Donnan is the celebrated tutelary of this isle."—*Martin*.
- ST DROSTAN**—*Edzell*; *Old Deer*, in the village; *Invermark Castle*, near manse, called Droustie's Well; *New Aberdour*, Aberdeenshire, about a mile north-east from the broadshore; *Charleston of Aberlour*.
- ST DUNSTAN**—*Melrose*—Still regarded by the country people as a sovereign remedy against cholicks.
- ST ETHAN**—*Burghead*, Elgin—Exceedingly pure and wholesome.
- ST ENGLATIUS**—*Tarves*, Tanglan's Well.

ST ENOCH or THENEW, mother of St Kentigern—*Glasgow*. The following references to this well are taken from the *Glasgow Burgh Records*:—"16th March 1573.—Johne Blakwod is fund in the wrang, and amerchiament of court for delvyng doun of the erd besyde St Thenewis Woll, quhilk is common, purposyng to appropriat the samyn to himself, and dwine gevin heir upon." "13th June 1595.—The baillies ordanes the maister of work to repair the brig at St Tinewis Well besyde the Greyn to be ane futte rod in tyme cumying." Macgeorge, in his *History of Old Glasgow*, p. 145, says—"It was shaded by an old tree, which drooped over it, and which remained till the end of the last century. On this tree the devotees who frequented the well were accustomed to nail as thanks-offerings small bits of tin-iron, probably manufactured for the purpose by a craftsman in the neighbourhood, representing the parts of the body supposed to have been cured by virtue of the blessed spring, a practice still common in Roman Catholic countries. The late Mr Robert Hart told me that he had been informed by an old man, a Mr Thomson, who had resided in the neighbourhood, that at the end of last century or the beginning of the present he had recollected this well being cleaned out, and of seeing picked out from the débris at the bottom several of those old votive offerings which had dropped from the tree, the stump of which at that time was still standing."

ST EUNAN—*Aboyne*, near the old church which is dedicated to him, the well is known as the Skeulan Well, which appears to be a corruption.

ST FERGUS—*Glamis*; *Montrose*; *Kirkmichael*, Banffshire.

ST FILLAN—(two saints of this name)—

" St Fillan's blessed well,
Whose springs can frenzied dreams dispel,
And crazed brains restore."

Struan; *Largs*, near site of chapel; *Strathfillan*; *Skelmorlie*. *Kilfillan*, on the farm of Old Luce. "Here a white thorn tree, in the Jerusalem Fey, is supposed to mark the site of the old chapel. There had been a village there, and the Ordnance Survey men in digging found a place where the roof had been covered with slates, and marked that spot as the site of the chapel. A little way off, in a marshy place on the opposite side of the brook, on the South Milton farm, is a well said to have been the holy well of the chapel, but I have not heard the name of any saint connected with it."—*Conway*. *Pittenweem*—"In a double cave in the innermost of which is a spring of water called St Fillan's Well."—*Records of the Priory of the Isle of May*. *Killallan* or *Kilfillan*, i.e., Cella Fillanie, the tutular saint of the parish, near by there is a spring well called Fillan's Well,

issuing from under a rock, shaded with bushes hanging over it, to which it is reported that the country women used to bring their ricketty children and bathe them in the waters, leaving some pieces of cloth as a present or offering for the saint. This custom continued till about the end of last century, when Mr Hutchinson, who was then minister, caused the well to be filled up with stones."—*O.S.A.*

ST FINAN or **FINIAN**—*Gartly*, parish of, Aberdeenshire, near chapel of. "Finan or Finian, born March 18, A.D. circa 575, in Ireland. There is a St Finzean's fair at Perth. The name of the church at Lumphanan, where Macbeth is believed to have been killed, though stated to be dedicated to St Vincent, is more probably St Finian."—*Forbes, Kal. Scot. Sts. Beith*, on Cuff Hill, feast (called St Inan here) still held in the village on the 30th of August if not a Saturday. *Lamington*, Lanarkshire.

ST FOMAC or **FURNAC** (?)—*Botriphnie*, parish of, six miles from Keith. "Botriffnie or Fumac Kirk had for its patron St Fumac, quhose wooden image is washed yearly, with much formality, by an old woman (quho keeps it) at his fair (on the third of May) in his own well here."—*M.S. Ac. of Scottish Bish. in the Lib. of Slains*, 1726). "This image existed till the beginning of this century, when, being swept away by a flood of the Isla, it was stranded at Banff, and they are yet alive (1847), who remember to have seen the statue committed to the flames, as a monument of superstition, by the parish minister."—*Illus. of the Antiq. of the Shires of Aberdeen and Banff*, vol. ii. p. 253, note, Spalding Club.

ST FRANCIS—*Dundee*.

ST FITHOC—*Aberdeen*.

ST GLASSIN—*Dundrennan*, *Kinglassie*, known here as Glescianus.

ST GERMAN or **GERMANUS**—*St German's Loch*, Dumbartonshire.

ST GERARDIN, real name probably Garnard or Garnat, a common name among the Picts.—*Forbes. Elgin*, at Holyman Head, a spring in the rock above the Hermitage.

ST HELEN—*Kilpatrick-Fleming*; *Darnick*, near Melrose; *Maybole*—"Long famous for the cure of unthriving children at the change of the quarter, and more particularly at May day, and was greatly resorted to even at a late date."—*N.S.A.*

ST HILARY—*Drumblait*, "Tellers Well."

ST HUCHON (?)—*Forghlen*; *Aberchirder*—"In a perambulation of the lands of the church of Aberchirder we find the words, 'and sua descendand fra the quhyt stane to the strynd of Sanct Huchonys Well.'"—*Forbes*.

ST JAMES—*Garroch*.

ST JOHN THE BAPTIST—*Helmsdale*. *Note*.—This is the only well I have found

dedicated to the Baptist, but probably some of those under the head of St John may also have been dedicated to him; it is likely, however, that the great majority were to the Evangelist.

ST JOHN—*Fyvie*; *Moffat*; *Logie Coldstone*; *Fochabers*, 3 miles from; *Inverkeithing*; *Kinnethmont*; *New Aberdour*; *Marykirk*; *Deskford*, Kirkton of; *Stranraer*; *Balmerino*; *Falkland*; *Gardenstone*; *Ordiquhill*; *Shettleston*; *Slap*, and St John's Well Stripe flowing from it; *Balmano*, Marykirk, Kincardineshire—"A very fine spring, formerly held in superstitious veneration, near the mansion."—*Ord. Gaz. of Scot.* *Dunrobin*; *Spott*—The town of Dunbar is mainly supplied from it. *Torphichen*—Here there is a strong spring of deliciously tasted water due east from the Preceptory, said to have been visited by the knights for their morning draught. In the courtyard of what is said to have been their townhouse in Linlithgow, and the remains of which are still of great interest, there is an excellent well of pure cold water.

ST IRNIE, "probably a form of Ethernan."—*Forbes.* *Kilrenny.*

ST KANE (I)—*Ardestie.*

ST KIERAN, otherwise Queran, Kyran or Carran—*Drumlithie*; *Glenbervie. Troqueer*, Kirkcudbrightshire, called here St Querdon. The following interesting notice of this well, by Patrick Dudgeon of Cargen, F.R.S.E., is taken from the *Transactions of the Dumfries and Galloway Natural History Society*, November 1870:—"Two years since Mr Sharke read an interesting paper before this Society on the 'Well in the Parish of Troqueer, popularly known as St Jergon's or St Querdon's Well,' and pointed out very conclusively, I think, that the name is a corruption of St Queran. St Queran or St Kieran—an Irish saint who flourished in the sixth century, his festival is celebrated on the 9th September. This well is one of the numerous saints' or holy wells scattered over the country, and was long held in great repute for the cure of diseases, particularly those of women and children. I have been informed by old people in the neighbourhood that they well remember its being resorted to by devotees, who hung pieces of cloth or ribbon upon the bushes growing near as offerings to the tutelary saint. Some years ago the tenant of the farm on which the well is situated, told me he had picked up a few coins in the neighbourhood, but I did not see them. Taking advantage of the very dry summer of last year, when the spring was unusually low, I had the well thoroughly cleaned out and put in order, it having been almost obliterated by cattle being allowed to use it as a watering place. Several hundreds of coins were found at the bottom, almost all being of the smallest description of copper coin, dating from the time of Elizabeth to that of George III. Mr

Sim, F.S.A. Scot., kindly examined these coins for me, a list of which I subjoin. None were of any particular interest or value; the greatest number are Scottish, and belong to the time of James VI., Charles I. and II. The circumstance that no coins were found of an older date than the reign of Elizabeth is not at all conclusive that offerings of a similar nature had not been made at much earlier periods. It will be observed that the oldest coins are the thinnest, and that although many are as thin as a sheet of writing paper—some were obtained so thin that they would not bear handling—the legend on them is perfectly distinct and legible; this of course would not have been the case had the thinning process been owing to wear and tear. When first taken out they were perfectly bright—as new copper—and had all the appearance of having been subjected to the action of an acid. Something in the water has acted very slowly as a solvent on the metal, and acting quite equally over the whole surface, has reduced the coins to their present state; it is therefore reasonable to conclude that owing to the solvent properties of the water, any coins thrown into the well anterior to the date of those found may have been completely dissolved. There is nothing remarkable about the water of the well; it possesses no decided mineral properties; is not at all chalybeate, as so many of the springs about are; rising as it does through a bed of peat moss, a large quantity of marsh gas is disengaged when the bottom is stirred; it has a uniform temperature of about 48° F., and is perfectly clear and tasteless. There is an old rhyme about two natural phenomena, as they were looked upon long ago,—‘a craig in carse, and a well in a moss.’ St Queran’s Well is ‘a well in a moss,’ and I suspect the feelings of wonder produced by what was looked upon as something ‘out of the common,’ and the circumstances of the well having been dedicated to a saint, has had more to do with bringing it into repute as possessing curative powers than any medical virtues the waters themselves possess. It will be noticed, on referring to the list of coins, that all the older ones, not Scottish, are exclusively Irish and French; this indicates very clearly the much more intimate relations existing between this part of Scotland and France and Ireland than with England, although so near the Border.

“Coins found in St Queran’s Well, 1869.

- “Scottish. James VI., Hardheads or Bodles.
 „ Twopenny pieces.
 Charles I., Twopenny pieces.
 Charles II., Turners and Half Turners.
 William and Mary, Bodles.

" Irish. Elizabeth, Pennies and Halfpennies.

" French. Louis XIII., Double Tournois.

" Fresia, Holland.

" A few modern coins George II. and III., Pennies, Halfpennies, and Farthings."

I have no doubt that many objects of interest would be discovered if other wells were thoroughly cleared out and carefully examined, and I would suggest this being done to those on whose properties wells still exist.

ST KILDA (?)—*St Kilda*, island of. "In this isle are plenty of excellent fountains or springs; that near the female warriors' house is reputed the best; it is called *Tou-bir-nim-beag*, importing no less than the well of qualities or virtues; it runs from east to west, being sixty paces ascent above the sea. I drank of it twice—an English quart each time; it was very clear, exceeding cold, light, and diuretic; I was not able to hold my hand in it above a few minutes for its coldness. The inhabitants of Harris find it effectual against windy-cholics, gravel, and headaches. This well hath a cover of stone. There is a very large well near the town called *St Kilda's Well*, from which the island is supposed to derive its name; this water is not inferior to that above mentioned; it runs to the south-east from the north-west. The taste of the water of those wells was so agreeable to me that for several weeks after the best fountains in the adjacent isles seemed to have lost their relish."—*Martin*.

ST KNAUHLAND—*Marnoch*, near site of chapel.

ST LAURENCE—*Fairgirth*—"Traces of building still to be seen" (*Harper's Rambles in Galloway*); *Slamannan*, two here, one being in the High Street; *Kinnord*, Aberdeenshire; *Rayne*; *New Duffus*.

ST LATA—*Alvie*, near the river Spey, and about one mile north-east from Loch Alvie, near St Lata's Church.

ST LEONARD—*St Andrews*; *Fochabers*; *Dunfermline*.

ST MACHAN—*Campsie*, Clachan of.

ST MACKESSOG—*Kirkton* of Auchterarder.

ST MACHALUS (?)—*Chapelton* of Kilmaichlie, cased with stone.

ST MAELRUBHA or MARÉE—*Innis Maree*; *Aboyne*.

ST MARTIN—*Cairnie*, at the remains of St Martin's Church, on the road from Keith to Huntly.

ST MICHAEL,—*Dallas*, near Bridge of Lossie; *Inverlochty*, near; *Linlithgow*; *Culsalmond*; *Applegarth*, near site of chapel; *Edinburgh*—I have failed to find the site of this well, probably it was in the Cowgate, as Maitland states that at one time, in the year 1480, "it was indifferently called the

Cowgate, South Street, and the Wellgate from the town's wells being therein. That it was a well of importance to the inhabitants of that time may be gathered from the following quotations from the *Edinburgh Burgh Records*:—"3rd March, 1584-5.—In respect of the greitt abusing of the commoun wellis be the burnemen water berers, and the kepars of the keyis, directis ilk bailye to tak ordour with the said wellis in his quarter for keeping of the same, viz., James Nicholl for St Michaelis Well, Henry Nesbit for the New Well, William Nesbit, bailye, and in his absence Jhoun Wat, for the Muse Well; ilk persoun under the payne of xxs. that failyeis to do his dewtie thairinto; and the thesaurer as of before to mark and furneis new lokis and keyis." "26th June 1584.—Ordanis James Ros, thesaurer, to caus clenge and repair the wellis of this burgh at the sicht and discretioun of William Littill, bailye, and Jhoun Watt, speciallie St Michaelis Well and the Stok Well." "29th July 1556.—'The prouest, baillies and counsale fairsaid deputtis David Symmer to be oursear of the well callit Sanct Michaelis Well, and Johnne Loch to the Mus Well, to cause them to be maid depar and purparit for water gadding." "16th December 1556.—The prouest, baillies and counsale ordains the thesaurer Alexander Park to reperell the wellis callit Sanct Michaelis Well, the Mus Well and the Stok Well, and to begyn thairto at Sanct Mongois day nixt tocum, and ordanis Master Johnne Pristoun to be oursear to Sanct Michaelis Well, Johnne Loch to the Mus Well, and Alexander Baroun to the said Stok Well, and quhat expens he makis thairon salbe allowit to him." In the Town Treasurer's accounts for 1553-54, there is an interesting note of the expenses "maid on the Mus Well and Sanct Michaelis Well."

ST MATTHEW—*Kirkton*, Dumbartonshire, near the old chapel; *Roslin*, of great purity, and supplies many of the inhabitants; it filters through a bed of gravel.

ST MARNOCK—*Aberchirder*; *Betsholm*; *Marnoch*, parish of, Banffshire, on the river Deveron, near Ardmallie House.

ST MAGNUS—*Birsay*, at Mill of Barony.

ST MARGARET—*Dunfermline*; *Restalrig*, formerly, now in Queen's Park; *Kirkcudbright*.

ST MEDAN, MADDEN, or MODAN—*Ardchattan*; *Airlie*; *Inglismaldie*; *King-oldrum*, parish of, near ruins of St Madden's Church; *Glasserton*—"With this well the following tradition is connected: The Lady Medan or Madana was an Irish lady of great beauty and wealth, and had resolved to devote herself and her substance to the service of God. Sought in marriage by many, she rejected all suitors, and they gave her up in despair,

all save one, 'Miles nobilis,' to avoid whose importunity she fled to the sea-shore, and got on board a little ship with two shields, and landed in the Rhinds, on the Galloway coast. Here she spent some time in security in performance of works of charity. Upon a rock are to be seen the marks of her knees, so constant was she in prayer. 'Miles nobilis,' however, found and followed her. Seeing no other means of escape she jumped into the sea, and with two sacred shields swam to a rock not far from the shore. The knight prepared to follow her; she prayed to the saints, and the rock began to float, carrying her and her two maids across the bay to Fernea. When landing she thought herself safe. The knight, however, soon discovered her, and came upon her and her two maids asleep on the shore. But the saints who watched over her caused a cock to crow preternaturally loud, and so awakened her. To save herself she climbed a tree, and addressed the disappointed 'Miles nobilis' in reproachful terms: 'What is it in me that so provokes your evil passions to persecute me thus?' He answered, 'That face and those eyes;' upon which, without hesitation, she pulled them out, and handed them to him. The knight, struck with penitence, left her in peace. She could find no water to wash the blood from her face, but the saints again befriended her, when up came a spring from the earth, which remains," says the legend, "to testify by its medicinal virtues the truth of the miracle."—(Conway, *Lands and their Owners in Galloway*, vol. i. p. 505.) *Kirk-maiden*—"From the superstitious observances connected with this spot, it seems likely that it was the abode of some Druid or other recluse in times prior to Christianity, and in later times it might have been the retreat of some monk, or disciple of St Medan, who would probably take advantage of its locality and reputation to serve his own interested views. To bathe in the well as the sun rose on the first Sunday of May was considered an infallible cure for almost any disease, but was particularly efficacious in the recovery of 'back gane bairns.' And till no very remote period it was customary for almost the whole population to collect at this spot on the first Sabbath in May, which was called Co.-Sunday, to bathe in the well, to leave their gifts in the cave, and to spend the day in gossiping or amusements. The well is a natural cylindrical hole in the solid rock, about 4 feet in diameter and 6 feet deep, filled with loose stones to about half its depth. Round its mouth are three or four small holes—('pot holes,' formed by the action of the waves by rolling about the gravel stones and sand in hollow places in the rock), which were used for bathing the hands and eyes, while the large one was used for the body generally. There is no spring; the well is kept full by the surf breaking

over the rock at full tide and spring tides. The inner apartment of the Chapel or Co. (that is cove or cave) is a natural cavity in the rock. The outer is of rude mason work with a door and a window. The walls are greatly dilapidated, and the roof long gone. At its best it must have been a mortifying residence. Strangers on a first visit are still reminded of the custom of leaving a present or a gift at departure; a pin, a blade of grass, or a pebble from the beach, are now considered sufficient, though, no doubt, in the days of our hermit, more substantial offerings were looked for and bestowed."—*Rev. Mr Lamb*, 1830. "The attendance on the well on Co.-Sunday was so general that public worship in the parish church had to give place to it. The last minister of the parish, to whom these superstitious observances proved an annoyance, was Mr Robert Callander. He, though not considered a powerful preacher, was a pious and good man, and made a point while in health of having service in the church on that day, even though the congregation was small. In May 1799, he, being from infirmity unable to walk on foot to the church, ordered his servant lad, before saddling his horse, to go and see if anybody was waiting. The lad finding only the beadle, precentor, and two others, the old man did not turn out. From that period the observance of Co.-Sunday rapidly declined. During the last thirty years it has scarcely been named."—*Conway, ab MS. Hist. of Kirkmaiden*, p. 40, by Mr Wm. Tod, Schoolmaster, written 1854, in his 80th year.

ST MARY.—"Our Lady."—*Melrose*; *Elyin*, near site of St Mary's Chapel; *Logan*, near Kirkmaiden; *Kilmadock*, near site of St Mary's Chapel; *Morton*; *Fyvie*; *Arbroath*; *Culsamond*, on the farm of Colpie; *Culloden Muir*, in a wood to the north of the muir; *Eskadale*, near St Mary's Chapel; *Turriff*, near Dalgetty Church; *Linton*, Roxburgh, about 6 miles from Kelso; *Bathgate*; *Longformacus*; *Ladykirk*, about 3 miles from Swinton; *Coldstream*, at Castle Law; *Tain*—This well is covered several hours each day by the sea, but so soon as the tide leaves it the waters become fresh and fit to drink; *Kirkbuster*—The ceremony here is to take water from the well at midnight and wash the patient between dawn and sunrise, wherein the diviner probably cast melted lead "throw the bowls of ane pair of cheiris three sundrie tymes, at ilk tyme saying thir wordis, 'In the name of the Father, Sone, and Holie Ghost,' for curing of dyvers and sundrie personnes." (*Dalzell, Darker Sup. of Scot.*); *Marystone*, Old Monkland, Lanarkshire; *Newton Stewart*; *Kippen*; *Airth*; *Drumoak*; *Banchory-Ternan*; *Tobermory*; *Edzell*; *Drumcairn*, Forfarshire, near chapel; *East Carsebank*, Oathlaw parish, Forfar; *Chapel of Garioch*; *Meldrum*; *Strichen*; *Loudoun*—"Maria's Well;" *Maybole*—"Lady Cross
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Well;" Port Knockie; Banff, near; Ordquhill, now covered; Tullibody; Jedburgh; Hobkirk; Milton of Carmylie, near site of "Our Lady's Chapel;" Kirkconnel, near chapel; Kirkcolm—"Near the site of the ancient kirk called Kilmore, on the shore of Loch Ryan. It was dedicated to the Virgin Mary. Kilmore, or the Chapel of the Virgin, is near an excellent spring of water of old, esteemed beneficial in many disorders. Superstition attached to it the infallible power of becoming dry if the patient for whom its water was to be drawn had a mortal malady, but of appearing in abundance if the disease was curable."—N.S.A. "St Mary's Well, into which people used to dip their dishes, has disappeared, but the spring of water which supplied it still flows on. Within recent years it has been diverted into tiles, and forms a spout well."—Conway, ab M'Ilbraith's *Guide to Wigtownshire*, p. 109). Alness, Inverness-shire—"In the upper part of the parish of Alness there lies between two steep hills a beautiful loch about three miles long by one mile broad. At the west end of this loch are the ruins of a Roman Catholic chapel, surrounded by a graveyard still used occasionally as a place of sepulture. The chapel was dedicated to the Virgin Mary. Between the chapel and the loch is a well called St Mary's Well, the streamlet from which flows into the loch. From the chapel being situated there, the glen has been named 'Cille-Mhoire'—now corrupted into 'Kildermorie'—and from the streamlet flowing into the loch it has been named 'Loch Moire.'—*Trans. Gael. Soc. Inverness*, vol. vii., 1877-78). Auchindoir, Fuaran Fiountag—Well of Virtue, Strathspey—"There is a well close to the site of the old chapel, still yielding a copious stream of deliciously pure and cold water. It goes by the name of *Fuaran Fiountag*, which may be translated into the cool refreshing spring. It is famed for its power of curing the toothache, and is the only well I know whose waters are supposed to possess this special healing quality. It is said that visits are still paid to it by those who suffer from this tormenting malady."—Dr Mitchell, vol. x. *Proceedings*, p. 671. *Dumfries*, "Our Lady;" *Middlebie*, O. L.; *St Mungo*, parish of, O. L.; *Glasgow*, Ladywell Street, O. L.; *Isle of May*, O. L.; *Cleish*, O. L.; *Airth*, O. L.; *Haddington*, O. L.; *Longformacus*, O. L.; *Liberton*, O. L., north from Liberton Tower, now covered; *Motherwell*, O. L.; *Chapelton*, O. L.; *Darriot*, O. L.; *Kintore*, in village, O. L.; *Auchinleck*, O. L.; *Carsphairn*, O. L.; *Clackmannan*, O. L.; *Stow*, O. L., chalybeate; *Ratho*, O. L.; *Leuchars*, O. L., used still to draw water from, and stands in the centre of the village square, hard by the fine old Norman church—visited September 1882; *Lamington*, O. L.; *Traquair*, O. L.; *New Luce*, O. L., No. 1, "On the edge of the old Port-William road, a little to the

east, is this well."—*Conway*. No. 2. "This well is in a plantation between the highway and the river Luce, just opposite the fifth milestone from Glenluce.—*Conway*. *Glenisla*, O. L.; *Lintithgow*; *Balmerino*, O. L.; *Falkland*, O. L.; *Aboyne*, O. L.; *Grunge*, Banffshire, O. L., near Chapel of the Virgin Mary. *Whitekirk*—"In times when more miracles were supposed to be wrought than at present, and pilgrimages more in vogue, it was said to be famous for the cure of barrenness. Drains and ditches, however, have not left the pilgrim a drop to drink."—*N.S.A.* *Cupar Fife*, Lady Burn.

ST MAYOTA or MAZOTA (?)—*Dulmaok*, on the Dec.

ST MIRREN or MERIN.—*Kilsyth*.

ST MONAN—*St Monance*.

ST MOLUAG or LUGAIDH, Molua or Moluoc of Lismore—*Mortlach*, "The Simmerluak Well." *Holy Island*, Arran. Circular. "A spring of pure water, his bath, much resorted to in the age of superstition, and celebrated for the healing virtues alleged to have been communicated to it by the prayers and blessings of the saints."—*N.S.A.* *Drumock*, "St Maik's Well," near Drum station.

ST MUNGO, otherwise KENTIGERN. *Penicuik*—There is another near the ruins of Mount Lothian Church; *Pebbles*; *Brow*; *Carsphairn*; *Ayr*, near Alloway Kirk; *Kinneff*, "St Kenty's Well;" *Currie*; *Glasgow*, in Cathedral crypt, and another at the West Port; *Dumfries*, in the parish of St Mungo, close by the church, about 48° summer and winter; *Bridge of Gairn*, Glengairn, near site of chapel. *Mid-Culder*—Between Combfoot and the river Almond, in the face of the "brae" sloping up from the river, built with stone about 3' 6" × 3' 0", and 15 inches deep; very pure, clear, and cold, and although small, there is an abundant supply, and it served the majority of the villagers previous to the present supply by pipes being introduced.—(*April*, 1883.)

ST MURIEL—*Rathmuriell*, in the Garioch.

ST NATHALAN—*Old Meldrum*, called here "Naugulan's Well."

ST NETHAN (?)—*Liberton*, Lanarkshire.

ST NORIE (?)—*Stuarton*, Inverness.

ST NINIAN, otherwise RINGAN or RINGALD—*Menmuir*, parish of, near Vane Castle, on Noran Water; *Dull*; *Lamington*; *Stirling*; *Arbroath*, near St Ninian's Chapel; *Arbirlot*, "Ringan's Well;" *Sinmavie*; *Alyth*; *Sandwick*, near site of chapel; *Ashkirk*; *Wigtown*, one mile from; *Penninghame*; *Mayfield*, Kirkcudbrightshire, called "St Ringald's Well."

¹ St Mary Magdalene.

Edinburgh, formerly.—See Dr Wilson's paper (and a drawing), recently read before the Society on Trinity College Church.

ST OLA or OLAVE—*Cruden.*

ST ORAN—*Colonsay*, "Close to Colonsay House."—*Mr Symington Grieve*, in letter to the writer.

ST OYNE (?), probably a corruption of Adamnan—*Rathen*, Aberdeenshire.

ST OUSET (?)—*Brechin*, on the north bank of the Esk, near the Stannochy Bridge.

ST PALLADIUS—*Fordoun*, "Paldy's Well."

ST PATRICK—*Muthill*, near site of St Patrick's Chapel; *Dalziel*; *Portpatrick*—"The Ordnance Survey map indicates the site of this well. It flowed where there was a quarry used for the harbour works. The writer of this notice heard from two men, John Mulholland and Owen Graham, dwelling at Portpatrick in 1860, that they had seen on the rock beneath the well what tradition said was the impression of the knees and left hand of St Patrick. Besides this well there was another, thus described by Dr Archibald:—'There is a large cave called the Cave of Uchtrie Macken, close by the sea, near Portpatrick, accessible by six steps of a stair entering a gate built with stone and lime, at the end of which is built an altar, at least a structure after that figure, to which many people resort upon the first night of May, and there do wash diseased children with water which runs from a spring over the cave, and afterwards they tye a farthing or the like and throw it upon the altar.'"—Conway, *ab Further Account anent Galloway*, pp. 150, 151.

ST PAUL—*Fyvie*; *Linlithgow*.

ST PETER—*Fyvie*; *Houston*; *Pitscurry*, near ruins of St Peter's Church; *Foveran*; *Logierait*, near site of chapel at Lassintullich; *Rait*, "St Peter's Wishing Well;" *New Duffus*; *Garmouth*; *Drumcraik*, near Culter paperworks; *Forglen*, at Kirkton, on the Deveron. *Mouswald*—"In one continuous spring for 30 or 40 yards, and never freezes."—*N.S.A.* *Kirkmaiden*, "Peter's Paps"—"This is a dropping cave. It is the cave to which Symson alludes in his large description of Galloway, where he says 'It is reported,' &c. Other cases are mentioned, and in rare instances were of late resorted to; but the infallibility of the cure is now very much suspected."—Conway, *ab Todd's MS.*, p. 32. *Marnoch*, "Peter's Well."

ST PHILIP—*Narrow.*

ST QUINTIN—*Morton*, parish of Dumfries.

ST RONALD—*Stonchaven*; *Bangff.*

ST RONAN—*Chapelton*, *Stanthdon*; *Butt of Lewis*—"Lunatics (1)

be cured. The patient walks seven times round the chapel, is then sprinkled with water from the well, and afterwards bound and deposited all night on the site of the altar." *Strowan*, of Monzievaird, and Pool.

ST SALVATOR—*St Andrews*.

ST SERF—*Monzievaird*, and St Serf's water.

ST STEPHEN—*Inverhaven*.

ST SERVAN—*Alva*.

- ST SHEAR (ST SERF I)—*Dumbarton* "June 27, 1713.—In consideration of the want of good water in the town, the council resolve to convey St Shear's Well across the Leven. Sir James Smollet to speak to the Laird of Kirkton thereanent, and to look out for some skilled persoun to execute the wark." "May 29, 1714.—The Council accept of an offer made by Mr Cairnaby, Glasgow, to bring St Shears Well into the town for £54. The Laird of Kirkton to be spoken to." "October 9, 1714.—Mr Cairnaby to be written for, to consult with the Council regarding the pipes for bringing in the water."—*Hist. of Dumbartonshire, Appendix, Burgh Records*, pp. 564, 565.

ST TALARICAN—*Kilsyth*; *Fordyce*, "Tarkin's Well."

ST TERNAN—*Findon*, Banchory-Devenick; *Kirkton of Slains*, Buchan parish.

ST THOMAS—*Lochmaben*, near chapel; *Crieff*; *Stirling*, near.

ST TREDWELL—*Papa Westray*, isle of, St Tredwell's Loch.

ST VIGEAN (ST FECHIN OF FOBHAR)—*Grange of Conan*, near the remains of St Vigeian's Chapel.

ST VALDRIN (?)—*Drymen*—"In the neighbourhood of Drumakill (in the parish of Drymen, in Lennox) is a remarkable well, called St Vildrin's Well. The well is still ornamented with an image, said to be of its patron saint; and in consequence of the healing virtues which the opinions of a less enlightened age ascribed to it, is often visited in modern times, 'throu the pervers inclinations of mannes ingyn to superstitiounne,' by pilgrims who profess little veneration for the ancient faith."—*Orig. Par.*, i. p. 38. Attracted by this and similar statements, as to the image remaining, in the *O. S. A.* and Forbes' *Kal. Scot. Sts.*, I visited the place on 27th February 1883, only to meet with disappointment. The well is covered, and drained into an adjoining burn, and the so-called image broken up and used as rubble in the erection of the farm house some fifteen years ago. The farmer's wife kindly showed me the place, and brought a hind on the farm, who had spent his lifetime there, to me. He stated that he and another man, when cleaning out the stream that ran from the well, came on the image some yards from the well, and they set it up above the well. It was shaped like

a cross, stood about 2 feet 6 inches high, and had a figure incised on the centre. When they shut the well and put in the drain, the cross was taken up to the farm steading, where it lay about three years, when it was broken in pieces with the carts going over it, and when building the new house it was used among the other material. The site of the well is beautifully situated at the foot of a glen, in what is now an open field of pasture. From the top charming views are obtained of Ben Lomond and Loch Lomond.

ST VIDAN (!)—*Kirkton of Menmuir*, Forfarshire.

ST WALLACH or WOLOC (!)—*Strathdeveron*; *Glass*, parish of, and bath—"The well and bath were quite recently in fame for their healing qualities. The well, which is about thirty yards below the old kirkyard, is now dry, except in very rainy weather, in consequence of the drainage of the field above it. It was frequented by people with sore eyes, and every one who went to it left a pin in a hole, which had been cut either by nature or art in a stone beside the well. Dr Duguid says he has seen this hole full of pins at the end of May. It was not thus on the saint's day, the 29th of January, but in May, that both the well and the bath were frequented, in late times at least. The bath is a cavity in the rock three or four feet deep, and is supplied by a small spring coming out of the brae about twenty yards above the bath, and the water trickles over the east end of the cavity, falling down the rock some four feet into the river. It was famed for curing children who were not thriving; and Dr Duguid says that when he first came to the parish hundreds of children were dipt in it every year, a rag, an old shirt, or a bib from the child's body, being hung on a tree beside the bath or thrown into it. When the Deveron was in flood it got into the bath, and swept all the offerings down to the sea. Dr Duguid adds that one person was this year (1874) brought to it from the seaside."—*Soc. Proc.*, vol. x. p. 607, Dr Mitchell.

ST WILLIAM (!)—*Melrose*.

ST WYNNIN—*Kilwinning*; *Holywood*.

II. "HOLY WELLS" WHICH HAVE NOT HAD, OR WHICH HAVE LOST, THEIR INDIVIDUAL DEDICATIONS.

HOLY ROOD—*Stenton*.

HOLY TRINITY—*Soutra*; *Trinity-Gask*—A little south of the manse, of great renown in Popish days for the performing of miraculous cures, fortifying against plague, witchcraft, and such other evils. The right of bleaching at this well is one of the privileges of the minister. Generally visited on Trinity Sunday, which is the first Sunday of June.

SAINTS' WELLS—*Tinwald* ; *Arbuthnott*.

HOLY WELLS—*Aberdour*, in Aberdeenshire, near site of chapel ; *Melrose* ; *Tinwald* ; *St Andrews* ; *Hatton of Fintry* ; *Galston* ; *Lochwinnoch* ; *Kilinodan*, Lower Duillater, called "Tobar a' Phìobain," near site of burial ground ; *Loch Morie*, Wester Ross, Renfrewshire.

CHAPEL WELLS—*Brechin*, three miles from ; *Strathmiglo*, near site of chapel at Gateside ; *Cloquheron*, called also "Carnell Well ;" *Raithhill* ; *New Machar*, near the site of the chapel of Straloch ; *Methlick* (!), *St Ninian* ; *Kilmaichlie*, covered with stone ; *Auchtergaven* ; *Applegarth* ; *Kirkmaiden*, near *St Medan's Cave* ; *Belhelvie* parish ; *Canonbie* parish, *Chapel Pool* ; *Aberlour*, near *Carron House*, on the Spey. [Note.—The Spey River seems also to have been a holy river.] *Kirkmichael*, Ayrshire ; *Ord*, on the Don, near site of chapel ; *Forgue*, near site of chapel ; *Rothiemay* ; *Mortlach*, near site of chapel ; *Turriff*, four miles from ; *Dunlop*, near chapel of *St Mary's* ; *Irvine*, near site of chapel ; *Johnstone* parish, *Dumfries* ; *Carnwath*, near site of *St Mary Magdalene Church* ; *Old Luce* ; *Mountblairey*, near site of chapel ; *Forglen*, at *Burnend* ; *Arbuthnott*, near village ; *Bathgate*, near site of chapel.

PRIORS' WELLS—*Priors' Wood*, *Melrose* ; *Balmerino* ; *Crail*.

MONKS' WELLS—*Newbattle* ; *Melrose*, *Monksford* ; *Overmiln*, *Balmerino* ; *Carmylie* ; *Newburgh*, *Fife* ; *Tyrie* ; *St Mary's Isle* ; *Ladykirk*.

CARDINAL'S WELL—*Hillend*, near *Dunnichen*, *Forfarshire*.

BISHOP'S WELLS—*Loch Spynie*, near the ruins of *Loch Spynie Church* ; *Kinnoul* ; *Golspie* ; *Skibo*.

HOLYWOOD WELL—*Holywood Abbey*, *Dumfries* ; *Saddell*, probably *St Congal*, the chapel being dedicated to him.

MURNAN or MOURNING WELLS (!), perhaps *ST MARNAN*—*Fyvie* ; *Pitsligo*, about six miles from *Fraserburgh* ; another some distance south from the same town.

PRIESTS' WELLS—*Kirkton of Mortlach* ; *Coltness* ; *Tullibody* ; *Rosskeen*, parish of, near *Loch Achnacloich* ; *Kirkmichael*, *Perthshire* ; *Abdie*, *Priest's Burn*.

ABBOTS' WELLS—*Abbotsford* ; *Newburgh*, *Fife*.

ABBAY WELLS—*Urquhart*, *Elgin*, sole memorial of the *Benedictine priory* founded by *David I.* in 1124 ; *Old Deer*, near the *Abbey of St Mary* ; *Pittenweem*, in the *Abbey Park*.

FRIAR'S WELL—*Ayr*, near the old bridge of *Ayr*.

NINE MAIDENS' WELLS—"The nine virgines dochters to *St Donewalde* under *King Eugenius VII.* in Scotland." *Pitsligo*, near *Roshearty* and ruins of *Pitsligo Church* ; *Mid-Calder*, *Maidens' Well* ; *Old Machar* ; *Drumhead*, *Forfarshire* ; *Glammis* ; *Oathlaw* ; *Newburgh*, *Fife*.

MUCHRICHA'S (?) WELL—*Aboyne*—"About a mile and a half north-west of the church there is a stone with a cross on it, and standing near the well. This stone, when removed at some olden time, is said to have been miraculously brought back by Muchricha, the guardian of the well."—*N.S.A.*

SILVER WELLS—*Arbroath*; *Fraserburgh*, Watch Hill; *Alvah*; *Walston*, Lanarkshire, Siller Well; *Turriff*—"There is also one in the estate of Gask in this parish, which had been notable, and the virtues of which could not be secured, but by a pecuniary offering to its patron, and hence the name of the farm where it exists, 'Silver Wells.' In the brae of Laithers, and in the neighbourhood of a chapel the foundation of which was removed some years ago by the plough, there was a well which was annually resorted to on a particular day by crowds from all quarters, the water of which was supposed to secure a continuance of health to those who enjoyed it, and to impart the blessing to such as were deprived of it."—*N.S.A.*

MONTLUCK—"In this gentleman's (Patrick M'Dowall of Logan) land, about a mile and a half from the parish kirk, is a well called Montluck; it is in the midst of a little bog, to which several persons have recourse to fetch water for such as are sick, asserting (whether it be truth or falsehood I shall not determine) that if the sick person shall recover the water shall so buller and mount up when the messenger dips in his vessel that he will hardly get out dry shod by reason of the overflowing of the well; but if the sick person be not to recover, there shall not be any such overflowing in the least. It is also reported (but I am not bound to believe all reports) that in this gentleman's land there is a rock at the sea-side, opposite the coast of Ireland, which is continually dropping, both winter and summer, which drop hath this quality, as my informant saith, that if any person be troubled with chincough, he may be infallibly cured by holding up his mouth and letting this drop fall therein."—Conway, *ab Simpson's Description of Galloway*, p. 67.

THE WELL OF SPA, Aberdeen—"The spring rises at the foot of the slope of the Woolmanhill, where the infirmary and its garden are situated. The water flows abundantly, is impregnated with iron ore and vitriol, and has been long celebrated for its medicinal qualities in nephritic disorders or in obstructions. About the year 1615, the spring, over which a building ornamented with the portraits of six of the apostles had stood during many years, attracted the attention of Dr William Barclay, at that time an eminent physician. He analysed the water, and having discovered its qualities and virtues, published a treatise upon it, under the title of

Calirrhoe, commonly called the Well of Spa or the Nymph of Aberdeen. 'Now I proceed to show the qualities of this water, for trial of which you shall take a little nutgall, bruise it in pieces, and throw it into a drinking glass full of this water, and if it be the true water it will become red, like claret wine, notwithstanding that a nutgall maketh all liquor black, were it never so rede of itself; neither is there any moysture in the world except it be endowed with this vitriolical virtue, that can draw a scarlet colour out of a nutgall. Beside this essay there is another, which consisteth in distilling the water, for in the bottom of the alembicke, there will remain a matter unsavourie, sometime red, and sometime black.'—*Dr Black's Treatise*, republished in Aberdeen in 1764. The building having fallen to decay, was afterwards repaired by George Jameson, the celebrated painter, who it appears was subject to a nephritic complaint. The well was in high repute by the inhabitants on account of its medicinal virtues, and frequently resorted to for relief in disorders of that nature. About the middle of the seventeenth century an extraordinary overflowing of the Denburn, which runs near it, demolished the building, and buried the spring among the rubbish of the well. In this situation the well remained till the year 1670, when the spring again having made its appearance, the present structure (on the front of the building there are cut in stone a thistle, rose, and lily, with a diadem and rising sun, having under them the following inscription :—'As Heaven gives me, so give I thee.'—*Hoc fonte privata salu in patriam populumque fluat spada rediviva*, 1670) was erected over it by Alexander Skene of Newtyle, one of the bailies, who had experienced considerable relief from drinking the water. About the year 1751 the spring disappeared for some time, but by the exertions of Dr James Gordon of Pitlurg it was recovered, and has ever since continued to flow without interruption. Its salutary virtues are still known to many individuals who resort to it for relief in various disorders. In the summer months it is much frequented by the citizens, particularly in the mornings."

VIRTUE WELLS—*Allanton*, Berwickshire, visited 21st April 1883; *Nesbit*, near Duns, visited 21st April 1883; *Newbattle*; *St Boswells*; *Nether Mains*, Berwickshire; *Mochrum Loch*—"This loch is very famous; many writers report that it never freezeth in the greatest frosts. . . . Whether it had any virtue of old I know not, but sure I am it hath it not now. However, I deny not but the water thereof may be medicinal, having received several credible informations that several persons, both old and young, have been cured of continued diseases by washing therein. Yet still I cannot approve of their washing three times therein, which they say they

must do ; neither the frequenting thereof the first Sunday of February, May, August, and November ; although many foolish people affirm that not only the water of this loch, but also *many other springs and wells, have more virtue on those days than any other.*—Conway, *ab Symson, Des. of Gall.*, p. 53.

CHIPPERFINIAN (Tobar-finian) Mochrum—"This is the name always given by the people, but in the Statistical Account and the Ordnance Survey map, it is called Chapel Finian. The foundations of an old chapel are close beside it, and the word 'chipper' which has been regarded as a vulgar corruption of the word chapel—seems rather to be a form of the Celtic word for a well (Tobar) found in such names as Tobermory and Tipperary. On the right hand about 16 feet from the stone fence, the foundations of the chapel are seen, of about 20 by 15 feet, inside measure, the walls having been built with lime mortar. It has been enclosed by a wall or fence, the remains of which are seen about 10 feet off at the sides, and 5 at the east end. Two stones at the south-east angle, beside an old thorn tree, seem to mark the gateway ; and at the south-west, close behind the highway wall, there is a circular hollow edged with stones. This seems to have been the well at some early time, and on the 6-inch map it is marked as a well with the name in black letter 'Chapel Finian Well.' Separated from it by the thickness of the highway fence is the well in its present form, which is a quadrangle, built with stones level with the surface. A stone on the north side bears an inscription which I could not get at for the water. It is a date cut in Roman letters, which do not look old ; I am told they were cut by a schoolmaster to give the date of St Finian. [This well should be under the saint's name therefore.—J. R. W.] The chapel is to the south, the whole being at the foot of a lofty bank of boulder clay, which marks the line of an old sea-beach, 25 feet above the present sea level."—Conway, *ab Rev. G. Wilson's Letter*, 25th July 1880.

CHIPPERHERON, Whithorn.

CHIPPERDINGAN—*New England Bay*, Kirkmaiden.

CORYVANNOCH WELL—*Glenisla*, Forfarshire—"Temperature always about 46° ; much resorted to in former times by the people of the district on the first Sabbath morning of May. It was then considered to be particularly efficacious to sickly children, more especially about day-break."—*N.S.A.*

RUTHVEN—"Resorted to on the first Sunday of May."—*N.S.A.*

CROIK OF WELL OF THE CROSS—*Grange*, Banffshire.

CRAIKQUERRELANE—"Fountains beside the chapel on a hill at Lochgreveron were frequented for various distempers ; and sundrie and divers multitudes

of men and women from all countries doe convene and gadder togidder to this chappell in the spring tyme, one day before St Patrick mass day ; and drinking every one of them of this spring and fresh water, alleadges that it shall recover them to their healthes againe, and uses the same yearlie. Once a tyme in the yeare certaine of theme doeth come for pilgrimadges, and certaine others in respect of their sickness present ; and so they are persuaded to be restored to their health by the helpe and assistance of that holy saint, and drinking of the waters that is to be hade there in the high craig and rough place."—*Dalzell's Darker Sup. of Scot.*

DRUMCASSIE—"Formerly patients would pass the night of Saturday here, so that they might be present on the first Sunday of May."—*Darker Sup. of Scot.*

WHITE LOCH, Merton—Deemed most salubrious on the first Sunday of May, and on that of each quarter of the year.—*Darker Sup. of Scot.*

CRAIGEUK WELL—*Avoch.*

KILMORE, in Lorn—Near the church "mystical or sanctified fishes recognised in it, during the course of the seventeenth century, described as having been two, black, never augmenting either in size or number, not exhibiting any alteration of colour, according to the testimony of the most aged persons. The inhabitants of the country doe call the said fishes *Easg Seant*, that is to say *holie fishes*."—*Darker Sup. of Scot.*

KILBARRAY, in Barra—"Well near the church, indicated war, where 'certaine dropps of blood appeared,' but peace when 'little bitts of peitts wold be sein.'"—*Darker Sup. of Scot.*

KILLEMORIE. "Well near the chapel. If the water rose suddenly on the messenger drawing it for an invalid, convalescence followed."—*Darker Sup. of Scot.*

MELSHACH, in the Moss of—"Threads, rags, and portions of apparel or of harness left."—*Darker Sup. of Scot.*

DOW LOCH—"If the apparel of an invalid floated in this loch, convalescence followed ; if otherwise, death. The patients were enjoined while raising the vessel each time to pronounce the words "I lift this water in name of the Father, Sone, and Holy Gaist, to do guid for thair helth, for quhom it is liftit.' The bearer of the water to a patient at a distance was warned against saluting or speaking to any one on the way."—*Darker Sup. of Scot.*

SIBBALDBIE WELL—*Applegarth.* A long distance from Sibbaldbie Church.

PENNYGLENS CROSS WELL, Maybole, enjoyed a great reputation for the cure of cows "taken with the severe ill and was carried great distances, as by 'drinking thair of they are healed.'"

(sulphureous), Canonbie ; Braes Well, Doctor's Well, Dumfries ; Branteth Well, Kilpatrick-Fleming ; Rottenrow Well, Inveresk ; Robin's Well, Penicuik ; Finfans Well, Urquhart ; Minnilmonie's Well, Kempy Well, Elgin ; Well Tokie, Rothes ; Well, near site of chapel at Poolfiasgan ; Well of Corrhint, Wood of Coverock ; Jock's Well, Katie Thirsty Well, Auchtermuchty ; Chincough Well (on the seashore), Kingsbarns ; Shucis Well (on Pow Burn), Kinross ; Scotland Well, in the Green of that village ; Panny Well, Kinglassie ; Targate Well, Dunfermline ; Blint's Well, Kinghorn ; The Dockan Well, Lintrathen ; Medicine Well, Letham, Forfarshire ; Bishop's Well, Melville, Fife ; Nickie's Well, Carmylie ; Sinavey Spring (near site of Mains Church), Dundee ; Robin's Well, Tranent ; Robach Well, Uig ; Garvage Well, Bourtree Well, Fraserburgh ; Torry Well, Glass ; Norry Well, Huntly ; Fairie Well, Monkton ; Fairy's Well, Maybole ; Struil Well, Barr ; Kittyfirst Well, Girvan ; Jock's Well, Banff ; Margaret's Well, Boharm ; Foulis Well, Rothiemay ; Ouglassy Well, Halkirk ; Fairy Well, Fordoun ; Jockey's Well, New Monkland ; Arms Well (on the Green), Glasgow ; The Marriage Well, Shettleston ; Kittymuir Well, Dalserf ; Well, near site of chapel, Kirkhouse, Delting ; Heavenly Aqua Well, Linton, Peeblesshire ; Jockey's Well, Dunkeld ; Beady's Well, Kenmore ; Jordan Well, Castleton ; Fairy Well, Penninghame ; Well, near St Blane's Chapel, Kingarth ; Sibyl's Well, Ladykirk.

V.

ON THE DISCOVERY OF A SCULPTURED STONE AT ST MADOES, WITH SOME NOTES ON INTERLACED ORNAMENT. By J. ROMILLY ALLEN, F.S.A. Scot.

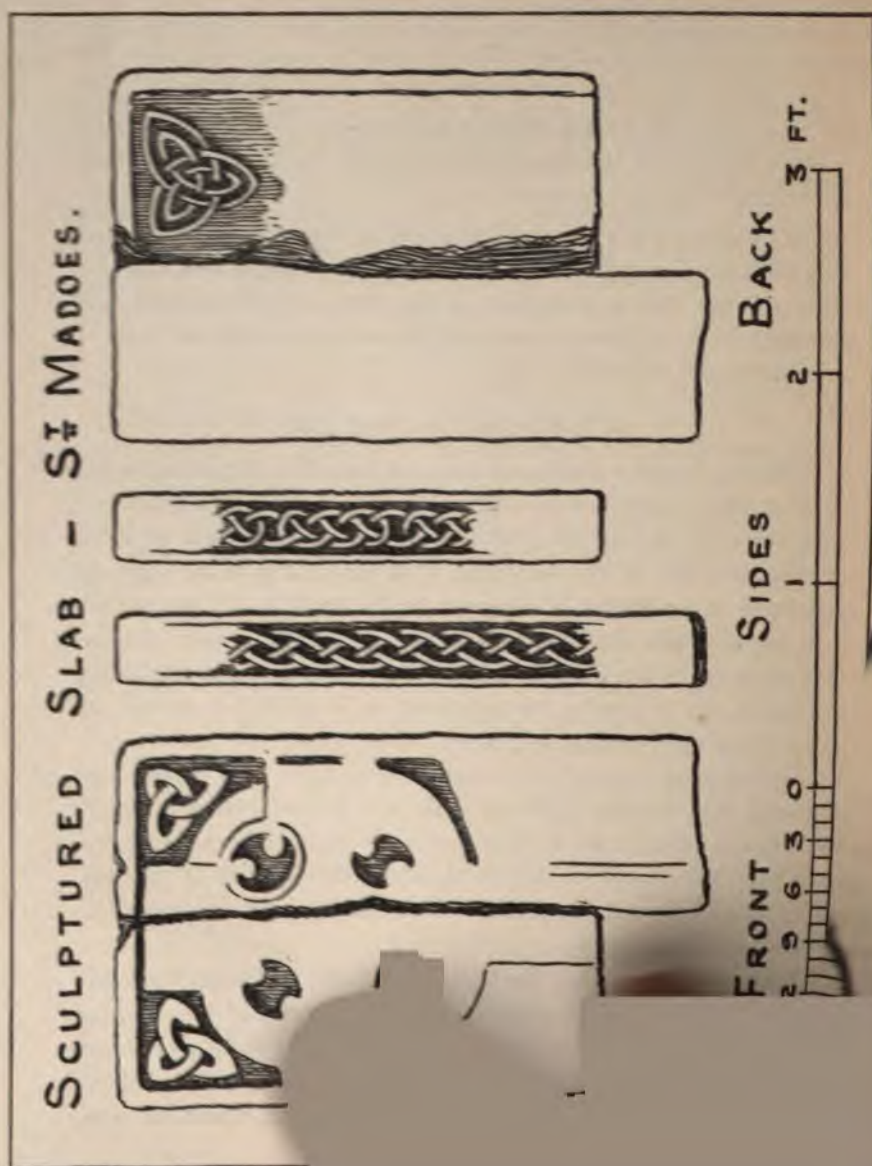
The following paper contains a notice of the discovery of a sculptured slab, built into the walls of the Session's House at St Madoes, in Perthshire, together with a description of the cross in the churchyard, and concludes with an attempt to analyse and classify the different forms of Celtic interlaced ornament.

St Madoes Session's House Slab.

St Madoes Church is situated on the north bank of the Tay, six miles east of Perth, and is about five minutes' walk from Glencarse railway station.

In the early part of the year 1881, Mr Magnus Jackson of Perth informed me that he had discovered what appeared to be the edge of a sculptured stone, similar in character to the cross in the churchyard, built into the walls of the Session's House adjoining the church. I thereupon wrote to the late Sir John Richardson of Pitfour Castle, mentioning the matter, and requesting his permission to be allowed to remove the stone, which was immediately granted. Mr Jackson and I accordingly went to the place in August, accompanied by a mason, who in the course of a short time was able to get out of the wall two sculptured fragments of stone, and build up the masonry again with less valuable archaeological materials. The sculptured fragments, when removed, were at once seen to be the two halves of a cross slab, which had been split up the middle and used as common rubble.

The shortest fragment is 2 feet 5 inches long, and the longest one 2 feet 10 inches long. When put together they form a sandstone slab 1 foot 9 inches wide, the thickness being 4 inches. What remains of the sculpture is shown on fig. 1. On the front is a cross of the usual Celtic form, with hollows where the arms meet, and a surrounding ring. On each side of the cross,



at the top, are triquetras, and below, on the right, are traces of carved work, but so obliterated that nothing can be made of it. The back has been entirely defaced, except at the right hand upper corner, where the triquetra figure occurs again, but with a double band instead of a single one, as on the other face. The pattern on the edges is a simple plait of four strands. It was this portion which was visible when the fragments were built into the wall, and which caught Mr Jackson's keen eye.¹

Mutilated as the St Maddoes slab unfortunately is, it is still of value from an archaeological point of view. The occurrence of the triquetra three times on a single stone is by no means common. The knot which is known by the name of the triquetra corresponds in form to the equilateral triangle, having three pointed loops which enclose triangular spaces arranged symmetrically round a central triangular space. It may be derived from the interlacing of three equal circles, the outer portions being removed. Used as a Christian symbol, it probably signifies the Trinity. On Celtic crosses and slabs it is used both as a symbol and an ornament. In the latter capacity it is admirably suited for filling in triangular spaces, formed, for example, by a circle inscribed in a square, as on the Maiden Stone in the Chapel of the Gairloch, or by a cross inscribed in a circle, as at Laugharne in Caermarthenshire. When the triquetra obviously does not form a portion of the ornamental design, it may be fairly assumed that it is intended as a symbol.²

¹ Quite recently I noticed a fragment, with exactly the same plaited ornament upon it, built into the wall of the chancel of Otley Church, near Leeds, where are preserved other sculptured stones with interlaced work, all of great interest.

² The most remarkable instance of this in Scotland is on one of the crosses at Meigle (Stuart, vol. i. pl. lxxiii.), where the triquetra occurs in association with four other symbols of unknown import—namely, the fish, the so-called elephant, the head of a conventional animal similar to that on the Norrie's Law leaf-shaped silver plate; the Z-shaped rod and serpent; the mirror and comb. The fish may possibly symbolise—

Ιησους

Χριστος

Θηου

Τιον

Ζωτηρ.

The fish symbol is used on a cross slab at Fuerty in Ireland (Petrie's *Christian Inschr.*, vol. ii. pl. viii.), and is to be found in the books of Kells and Armagh. The

St Madoes Churchyard Cross.

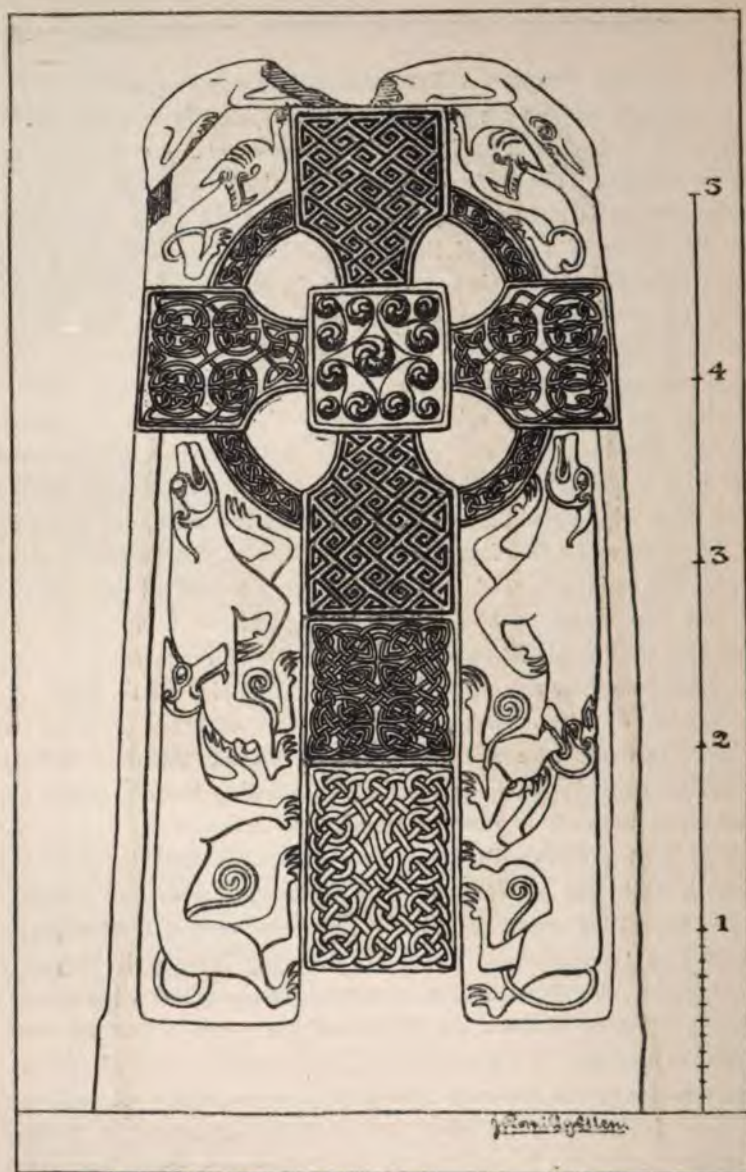
The cross of St Madoes lay for many years neglected and unknown in the churchyard until, in December 1853, at the instance of Mr Muir of Leith,¹ it was erected on a substantial sandstone base, outside the west door of the church. According to Dr Stuart,² nothing is known of the history of the cross, but he identifies St Madoes with St Madoch, who is supposed to have come from France and landed on the banks of the Tay hard by, where he made converts to the Christian faith, by whom the original church was built and dedicated to the saint. The cross is a slab of red sandstone, 8 inches thick, 5 feet 6 inches high, and 2 feet 6 inches wide at the top, and 3 feet wide at the bottom. Imbedded in the sandstone are several hard quartz pebbles, which were dressed down flat with the rest of the surface when the cross was carved. The tool marks still remain sharp and distinct on the tops of the pebbles, which now project in some cases quite an eighth of an inch above the rest of the stone, thus showing the exact amount of disintegration which the ravages of time have effected. If it were not for the fact of the recessed portions of the carving weathering together with the parts in relief, though probably not at the same rate, all traces of the ornament in these sculptured stones

triquetra is employed as a symbol on the wheel cross at Margam in Glamorgan-shire (Westwood's *Lapidarium Wallie*, pl. xv.), where it is placed above figures of saints on each side of the shaft of the cross; and at Llanfrynach (*Westwood*, pl. xxxix.), where it occurs twice in association with the figure of a dove. On a cross at the Calf of Man (Cumming's *Runic Remains of the Isle of Man*, pl. xi.), the triquetra appears on the dress of the crucified Saviour. The triquetra occurs on the breasts of three out of four of the figures of the Evangelists in the copy of the Gospels of Dimma, written in the sixth century, and now in the library of Trinity College, Dublin (Petrie's *Ecclesiastical Architecture of Ireland*, p. 324). The triquetra is used on metal-work as an ornament on a bronze ornament found at Athlone, now in our Museum; on the croziers of St Fillan and of St Damhnad Ochene (Petrie, p. 323). For various examples see the following:—Stuart's *Sculptured Stones of Scotland*, vol. i. pls. ii., lviii., lxxiii., xlii.; vol. ii. pls. ix., xxxviii., lxxxii., xcii.; Petrie's *Christian Inscriptions in the Irish Language*, vol. i. pls. v., xxxiv., xxxvi., li., liii.; vol. ii. pl. xvii.; Westwood's *Lapidarium Wallie*, pls. v., xv., xxxix., xlviii., lvi., lxxii.; Cumming's *Runic Remains of the Isle of Man*, pls. iv., xi., xii.

¹ Muir's *Notes on Remains of Ecclesiastical Architecture*, p. 27.

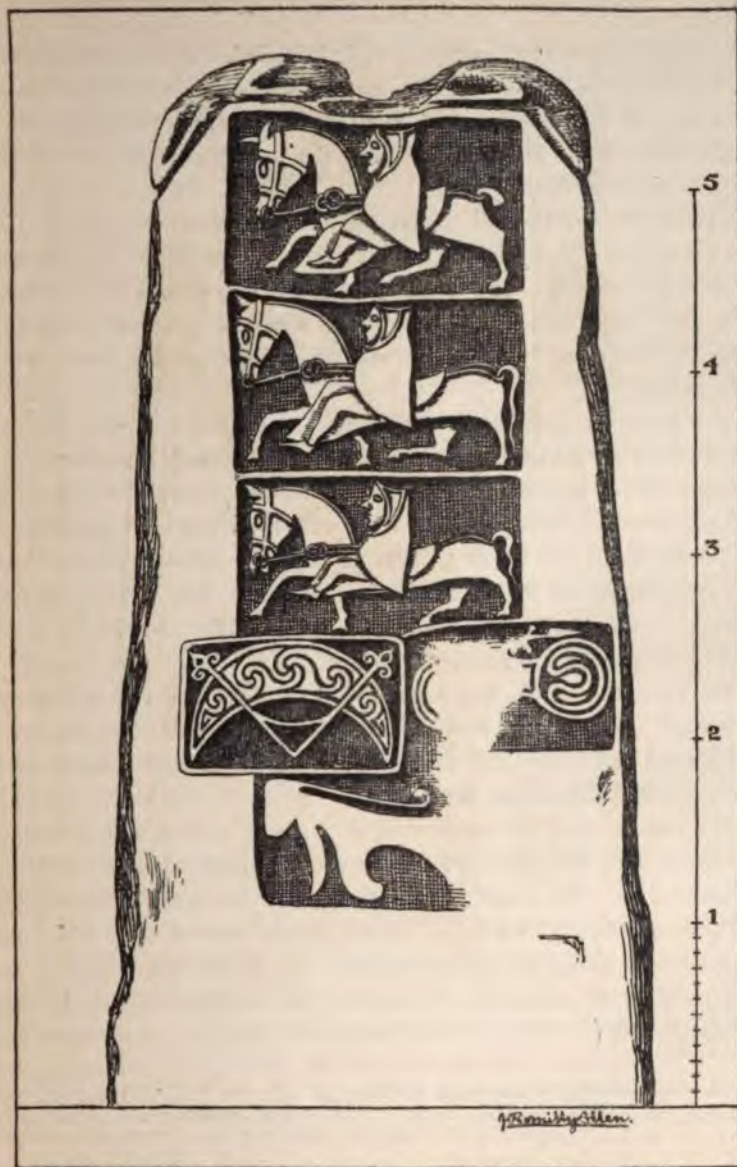
² *Sculptured Stones of Scotland*, vol. i. p. 16.

would very soon disappear. Even as it is, it is a great question whether these exquisite monuments should be allowed gradually to perish by exposure, when they might easily be placed under cover or coated with some silicate solution. The sooner casts are taken the better, as the sharpness of the carving is rapidly going. The design on the front of the stone (fig. 2) consists of a cross of the usual Celtic form in relief, the central square being the highest above the rest of the surface, then the shaft and arms, and next the circular ring which connects the arms. The circular hollows at the intersections of the arms are considerably recessed. The central square, from which the arms diverge, is ornamented with thirteen raised bosses formed by spirals, similar to those of the Celtic manuscripts. The bosses are arranged symmetrically thus—a large central boss with a quadruple left-handed spiral, surrounded by eight smaller bosses with triple spirals, alternately right and left handed, and filling up the four corners, are the four smallest bosses, with double spirals alternately right and left handed. These spirals may be realised by imagining a wheel with elastic spokes, the axle being twisted round, while the circumference is held stationary. The character of the spiral will therefore depend on three things, namely—(1) the direction of the twist, (2) the number of curved spokes, (3) the number of twists given to the spokes. In Celtic ornament the spirals run one into the other, and the triangular spaces between the touching circles form trumpet-shaped expansions at the ends of the spirals. In the Celtic MSS., such as the book of Kells (Westwood's *Miniatures*, pl. ix.), the groundwork of the spirals is white, but a great part of the interspace, where the trumpet-shaped expansions occur, is black. Much the same general effect is obtained on the sculptured stones by engraving the spirals on raised bosses, and leaving the remaining portion of the surface at a lower level. Another difference between the MSS. and the stones, is that the MSS. spirals are composed of a few lines, but have a great number of convolutions, whereas on the stones the number of lines is greater but their convolutions fewer, this form being more suitable for carving in a coarse material. Spirals are to be found on the Irish stones, the earliest dated



GUYOT & WOOD Sc.

Fig. 2. Sculptured Stone in the churchyard of St Madocs (obverse).



GUYOT & WOOD, SC

Fig. 3. Sculptured Stone in the churchyard of St Madoes (reverse).

specimens being at Clonmacnois, A.D. 887 (Petrie's *Christian Inscriptions*, pl. xxxi.), but in Wales there are none. Spirals exist on several stones in Scotland, as at Dunfallandy, Hilton of Cadboll, and elsewhere, but I think those at St Madoes are almost the most perfect of all, both as regards design and execution.

The two vertical arms of the cross are covered with key patterns, like the Greek fret with square angles, but running diagonally. Key patterns are common to most of the Welsh, Scotch, and Irish stones, but the specimen now under consideration is much more finely executed than is generally the case; in fact, the work resembles engraving more nearly than carving.

The horizontal arms of the cross, the connecting ring, and the two lower panels of the shaft are decorated with interlaced ornament. The element, which is repeated four times to form the patterns on each of the side arms, consists of a penanular band with two breaks at opposite sides of the circle, where it bends inwards and forms a series of knots, which are symmetrical on each side of the diameter. The special class of patterns to which these interlacements belong is described in the latter part of the present paper (see No. 171, p. 260).

The knot-work on the ring connecting the arms of the cross is irregular in design. The central panel of the shaft is approximately square, and contains an arrangement of four symmetrical knots with pointed ends, and composed of a double band.¹

The bottom panel of the shaft is oblong, and covered with a broader interlaced band than the one above, looped round the edges, but irregular in the middle. There are a few irregularities also in the interlacements of the panel above. Variations in the design, such as these which are apparently meaningless, do not occur in the MSS., although they are frequently to be noticed on the stones. The explanation may be that the design was set out by a draughtsman, and that the mistakes are due

¹ In Stuart's *Sculptured Stones of Scotland* (pls. lv. and lvi.) a single band only is shown; there is also a mistake in the interlacements of the left arm of the cross, and on the back the cruppers of the horses are omitted altogether.

to the carver's want of skill in following out the lines set before him. Slight variations are often found in the best work, with the object of preventing symmetry becoming too exact and therefore monotonous; but the irregularities referred to do not, I think, come under this head, being too meaningless and too easily detected. At the same time other parts of the execution of the St Maddoes stone are so faultlessly carried out that it is difficult to understand mistakes occurring here.

The remaining portion of the face of the stone is filled in with conventional animal forms. Above the cross on each side are beasts with pointed ears and twisted tails, biting their own backs. The canine teeth are highly developed, and the wrinkles on the nose are like those exhibited by a ferocious bull-dog when showing his teeth.

On each side of the shaft of the cross are pairs of long straight-backed animals, the lower one biting the thigh of the one above. The tails are curled under the bellies, and the paws are armed with long claws. The ears are conventionalised in a very curious manner, and assume the forms of triple spirals. All the groups of animals are symmetrical on each half of the stone.

The edges of the slab have been left plain, and do not appear even to have been dressed smooth.

At the top the square corners are bevelled off at an angle of 45° , and here are placed two conventional beasts facing each other in a crouching position, ready for a spring. Their heads have unfortunately been defaced.

The back of the stone (fig. 3) is divided into six panels, three containing figures of horsemen and three enclosing symbols. The three figures of men on horseback seem to be all similar, with the exception that the horse on the top panel has his tail cropped, whereas in the other two cases the tails are long and wavy. The manes of all the horses are cropped. The horse-trappings, including cruppers, ring bits, reins attached to double rings, saddles, and horse-cloths, are very clearly shown, but there seem to be no stirrups. The horsemen wear short, stiff, pointed cloaks, with cowls sticking up like horns on each side of the head.

Cloaked and cowed figures on horseback occur on stones at Mortlach and Eilanmore (Stuart, vol. i. pls. xiv. and c.). The horned cowl appears on a figure on a fragment at St Vigeans in connection with a pastoral staff and the double disc symbol (*Proc. Soc. Ant. Scot.*, vol. ix. pl. xxxiii., No. 14). It is also seen on the Burra Stone (*Proc. Soc. Ant. Scot.*, vol. xv. p. 201), and on the Bressay Stone (Stuart, vol. i. pl. xcv.). A cowl of this description thrown back from the head is shown on a slab at St Vigeans (Stuart, vol. i. pl. lxx.). Arguing from analogy, the horsemen on the St Madoes Stone are probably intended for priests.

Immediately below the horsemen are two panels containing symbols; that on the left-hand side is the crescent and V-shaped rod with floriated ends. The crescent is filled in with spiral ornamentation. The panel on the right contains the Z and double disc symbol. The stone is a good deal worn at this point, but enough remains of one of the discs to trace the concentric penannular circles within it. Below the two panels just described is a third enclosing the so-called elephant symbol. The meaning of these symbols is at present shrouded in mystery.

The V and crescent occurs more frequently than any other symbol, being found on 28 pillar stones, 20 cross slabs, 3 caves, 1 metal ornament and 1 bone, making a total of 52.

The Z and double disc occurs on 18 pillar stones, 14 cross slabs, 1 cave, and 3 metal ornaments, making a total of 34.

The so-called elephant or long-jawed beast occurs on 13 pillar stones, 19 cross slabs, and 3 caves, making a total of 35.¹

The V and crescent and Z and double disc occur in combination altogether 9 times.

The V and crescent and long-jawed beast occur in combination altogether 9 times.

The Z and double disc and long-jawed beast occur in combination altogether 6 times.

All these symbols occur together only at St Madoes and Glenferness;

¹ Stuart's *Sculptured Stones of Scotland*, vol. ii. p. lxxiv.

also at Dunfallandy and Hilton of Cadboll, only the double disc has no Z.

The special peculiarity of the St Madoes stone is that the symbols occur in connection with horsemen, and that the number of both horsemen and symbols is the same. Symbols and horsemen occur together on the following stones:—Mortlach, Elgin, Cadboll, Shandwick, Kirriemuir, Dunfallandy, Fowlis Wester, Largo, Fordoun, Balluderon, Aberlemno (two stones), Cossins, Abbotsford, Gask, Meigle (three stones), Migvie, Rossie, making a total of twenty. The number of horsemen vary from one to five, and the symbols from one to three. In some cases I cannot help thinking that the symbols have some direct reference to the horsemen, although their numbers do not usually correspond.

At Cadboll, Kirriemuir, and Dunfallandy the symbols are placed in front of the horse's head, perhaps suggesting the idea that the thing symbolised was leading the horseman onwards, or acting as his guardian angel, or simply standing as a title for the horseman. The examples at Rossie, Fordoun, and Balluderon are remarkable, as some of the horsemen are enclosed in the panels of the shafts of the crosses, the symbols being immediately to the right or left, and apparently having some connection one with the other.

On the stones where horsemen occur, the following symbols are also found:—1. V and crescent, seven times; 2. V and horse-shoe, once; 3. Z and double disc, seven times; 4. Z and serpent, twice; 5. Z and horse, once; 6. long-jawed beast, eight times; 7. flower, once; 8. bird, once; 9. bull's head and serpent, once; 10. mirror and comb, once; 11. double disc, twice; 12. triple disc, once.

Having now described in detail the chief features of the sculpture with which the St Madoes stone is decorated, all that remains to be considered is its probable age. Mr Anderson has shown in his *Rhind Lectures*¹ that the date of any monument can only be determined by direct historical evidence about that particular monument itself, and that the province of archaeology is to ascertain to what special type the monument belongs,

¹ *Scotland in Early Christian Times* (1st ser.), p. 20.

and not its age. The archæologist having arranged monuments according to their types, the historian finds out the date of certain specimens, which, if sufficiently numerous, are enough to fix the limits of duration in time of any particular type in a given area. In the absence, therefore, of direct historical evidence with regard to a particular monument, all that can be said is, that its date lies between the period when the type to which it belongs first appeared and the period when the type ceased to exist. The character of a type seldom remains constant throughout its whole existence; but there is generally a point of maximum excellence of workmanship and design, on one side of which we find an advance towards perfection, and on the other a tendency towards that degradation which precedes extinction. Rudeness of workmanship indicates generally that a monument belongs either to the former or the latter periods referred to, but it is often difficult to say which; and when it is considered that rudeness of workmanship may be due to other causes, such as distance from centres of culture; and also when it is borne in mind that a particular type may survive in an out-of-the-way district, or where the surrounding circumstances have a special fitness for it long after it has disappeared elsewhere, I think it will be seen how almost impossible it is to give even approximate dates without direct historical evidence.

With regard to the St Madoes stone there is unfortunately no tradition on record of any kind. It belongs to a type of upright cross slabs, covered with Celtic ornament, and bearing symbols of unknown meaning, which are found on stones in the east of Scotland only. Both the workmanship and design are of a very high character, and belong neither to the early period when the style was being gradually developed, nor to the late period when the interlaced patterns were degenerating into leafy scroll-work, but to that time when Celtic art was at its best. The question therefore arises, When did Celtic art reach its highest development, and on what historic evidence are the proofs founded? Mr Anderson has expressed it as his opinion that the typical forms of Celtic ornamentation—namely, knot-work, key patterns, and volutes—originated in the MSS.,

and subsequently found their way to stone and metal-work.¹ First, therefore, let us consider the dates of the MSS. There is only one Scotch MS. of this class, and the art it exhibits is rude. I refer to the *Book of Deer*, which Professor Westwood, on account of its palæographical peculiarities, ascribes to the ninth century.² The finest art-work of the Irish MSS. is in the *Book of Kells*, the first historic record of the existence of which is in the year 1006, but which is thought by Professor Westwood and Dr Reeves to be as old as the seventh century.

Next in beauty of its ornamentation to the *Book of Kells* comes the *Book of Durrow*. It was written by one named Columba,³ and if this is the celebrated saint (which is doubtful), it must be of the sixth century. The cumdach or cover for the *Book of Durrow* was made between 877 and 916, and the MSS. must therefore be at least as old as the ninth century.⁴ The *Gospels of Lindisfarne*, although executed by Saxons, belongs to the Scotie school of art, and to the period when the illuminations had reached their highest perfection. It was written between 698 and 721 by Eadfrith, bishop of Lindisfarne.⁵

Next, with regard to the sculptured stones. There is only one inscribed stone of this type in Scotland which records the names of Drosten, Foret (?), and Forcus. By comparing its palæographical peculiarities with the slabs and crosses at Clonmacnois in Ireland, it would appear to belong to the type which existed in Ireland in the ninth century.⁶ In Petrie's *Christian Inscriptions in the Irish Language* (p. 13) a list is given of eighty-one sepulchral slabs whose dates are known by historical evidence, varying from A.D. 628 to 1273. The first instance of a key pattern occurs on a slab (pl. xii.) of the date of 806. The first example of a spiral pattern is (on pl. xxxi.), date 807, and of interlaced work (on pl. xxxv.), date 889. On the tombstone of St Fiachraich (pl. xxxvii.), date 921, the patterns become elaborate. Of the free standing high crosses of Ireland

¹ *Scotland in Early Christian Times* (2nd ser.), p. 109.

² *Book of Deer*, Spalding Club, Preface, xviii.

³ *Scotland in Early Christian Times* (1st series), p. 145.

⁴ *Ibid.*, p. 146.

⁵ *Ibid.*, p. 150.

⁶ *Ibid.* (2nd ser.), p. 195.

five are dated, namely, Monasterboice, 924; Clonmacnois, 914; Tuam (two crosses), 1106.¹

Two Welsh inscribed stones with key patterns and interlacements at Llantwit Major, in Glamorganshire, commemorating Samson and Howel ap Rhys, are from historical and palæographical evidence ascribed by Professor Westwood to the close of the ninth century.²

The crosses of the Isle of Man are known by historic evidence to have all been erected between the years 888 and 1226.³ They are inscribed in Runes, and ornamented with interlaced work.

The dated examples of Celtic metal-work which remains are of later date than either the MSS. or the stones: some of the chief specimens are the cumdach of Dimma's Book, 1150-1220; cumdach of the Stowe Missal, 1023-1052; the Dommach Airgid, 1319-1353; Shrine of the Bell of St Patrick's Will, 1091-1105; Processional Cross of Cong, 1123; Crozier of Kells, 967-1047; Crozier of Lismore, 1090-1113.

The following are the conclusions therefore with regard to Celtic Christian art :—

1. No Christian work of art of any kind found in Ireland is earlier than the fifth century, or found in Scotland than the sixth century.

2. Celtic art in the MSS. reached its highest point of development in the seventh century (example the *Book of Lindisfarne*), and therefore the origin of interlaced work may be put at an earlier date.

3. Celtic art on the sculptured stones had commenced in the ninth, and at the beginning of the tenth century had attained its greatest perfection (as for example the crosses of Monasterboice, Clonmacnois, and tombstones of St Fiachraich and Berechtuire of Tullylease), and lasted to the end of the twelfth century.

4. Celtic art in metal-work of the best kind existed in the eleventh and twelfth centuries from historic evidence, and probably commenced at a much earlier period.

As the cross of St Madoes belongs to the best period of Celtic sculp-

¹ Petrie's *Christian Inscriptions*, vol. ii. p. 151.

² Westwood's *Lapidarium Walliæ*, p. 11.

³ Cumming's *Runic Remains of the Isle of Man*, p. 4.

ture on stone, it is probable that its age lies somewhere between the beginning of the tenth century and the end of the twelfth.¹

The Analysis and Classification of Celtic Interlaced Ornament.

The sculpture on the Christian stones of Scotland, which were erected between the seventh and twelfth centuries, may be arranged under the following heads:²—

- | | |
|--|---|
| 1. Interlaced ornament, | } Pure geometrical ornament. |
| 2. Key patterns, | |
| 3. Spiral ornament, | |
| 4. Conventional animals, with inter-
twined bodies, limbs, and tails, | } Geometrical ornament, de-
veloped into animal and
leafy shapes. |
| 5. Conventional foliage in scroll-work
form, | |
| 6. Figures of human beings, | } Pictorial representations. |
| 7. Figures of animals, | |
| 8. Figures of objects, | |
| 9. Figures of ideal forms, | |
| 10. Symbols. | |

In the present paper I propose to deal with the subject of interlaced ornament only, and to arrange and classify all the different patterns which occur upon the sculptured stones of the Celtic period, so as to show how the most complicated kinds of knot-work have been gradually developed from the simpler forms of interlacements, such as the twist and plait.

A great deal of ingenuity has been wasted by various authors in speculating as to the probable origin of Celtic interlaced work, which

¹ The drawings which illustrate this portion of the paper have been carefully reduced to scale from rubbings divided into inch squares, and corrected with the aid of photographs taken by Mr Magnus Jackson of Perth.

² See Mr Anderson's Classification in *Scotland in Early Christian Times*, 2nd series, p. 132, which is much the same; also Professor Westwood's in the *Journal of the Archaeology. Inst.*, vol. vii. p. 17.

would have been far better employed in studying the details of the ornament itself. The fact is that the idea of interlaced bands applied to decorative purposes may have been suggested in a variety of different ways, as for example by any twisted, plaited, or woven fabric, or by braidwork patterns sewn upon garments. Mr Anderson has pointed out that this species of ornament is to be found upon the works of art of most periods and of most nations,¹ the only difference between Celtic knot-work and that produced elsewhere being, that in the former case it was made one of the leading features of the style of decoration, and was developed with an amount of ingenuity quite unparalleled, whereas in the latter case only the simpler kinds of interlaced patterns occur, and they generally occupy a very subordinate position in designs where more favoured forms predominate. The other authors who have dealt with this subject in the most rational manner are Professor Westwood² and the Rev. J. G. Cumming.³

The class of decoration known as interlaced work consists in covering a surface with one or more narrow bands, formed into twists, plaits, loops, or knots recurring at regular intervals. Whenever one band crosses another, the former laps either under or over the latter, and in Celtic work these overlappings follow each other in regular succession and with unerring precision under, over, under, over, &c., one band never crossing over two or more other bands at a time.

I propose to divide interlaced ornament broadly into two classes, namely, plait-work and knot-work. The former includes all patterns consisting of bands twisted or plaited together, and all patterns derived therefrom by the process hereafter described as "stopping off."

The latter includes all patterns made by the repetition of an elementary knot at regular intervals, the ends being joined so as to form one or more continuous bands. I think it possible, as will be seen later on, that knot-work was simply developed out of plait-work.

The shape of the space to be filled in has now to be considered; this

¹ *Scotland in Early Christian Times*, 2nd series, p. 111.

² *Journal of the Archaeolog. Inst.*, vol. vii. p. 17, and vol. x. p. 285.

³ *Archæologia Cambrensis*, 1866, p. 156.

may be either rectangular, square, triangular, or circular. When the space is rectangular (which is the commonest case) the knots are arranged in one or more parallel rows, and the bands joined across at intervals, so as to connect the rows together.

When the space is square it may be filled in either in the same way as a rectangular space, or it may be divided by diagonal lines into four or more triangles, each containing an elementary knot.

When the space is triangular it is generally filled up entirely with one three-cornered knot.

When the space is circular the knots are arranged symmetrically in concentric circular rows.

Although the elementary twists, plaits, and knots of which Celtic interlaced work is composed are very simple and comparatively few in number, yet the general effect produced is often one of almost bewildering complication. This is due to the several variations of pattern which can be made by the following means:—

1. The same elementary knot may be repeated and combined in several different ways, either by altering its position, that is by turning it round so as to face in various directions, or by altering the direction of the spiral twist of the cords composing the knot, that is, by making the knots either right or left handed. The number of variations which can be obtained from any particular knot depends on the laws of symmetry. These laws apply not only to knots, but to all geometrical figures whatsoever, and determine the number of different patterns that can be produced by their combination; it may be as well therefore to state clearly what is meant by symmetry. In the geometry of plane figures two kinds of symmetry are recognised, namely, central and axial symmetry. A figure is said to be symmetrical with regard to a centre when it has corresponding points in every part of it on opposite sides of the centre, and at the same distance from it. A figure which has central symmetry remains unchanged, if turned in the plane of the paper round the centre of symmetry through an angle of 180° . A figure is said to be symmetrical with regard to an axis when it has corresponding points on

opposite sides of the axis or centre line, and at the same distance from it. A figure which has axial symmetry remains unchanged, if turned round the axis of symmetry through an angle of 180° , that is, taken off the paper and turned upon itself. It may help to realise the foregoing if the symmetry of the capital letters of the alphabet be analysed, thus—

A H I M O T U V W X Y

are symmetrical with regard to a vertical axis, and if turned over sideways upon themselves, or reflected in a looking-glass, remain unchanged.

B C D E H I K O

are symmetrical with regard to a horizontal axis; and if turned over upon themselves upwards or downwards, instead of sideways as in the previous case, remain unchanged.

H I N O S X Z

are symmetrical with regard to a centre, and when turned upside down remain unchanged.

F G J L P Q R

are quite unsymmetrical. It will be observed that some letters, such as H I O X, possess both kinds of symmetry. Applying the above principles to knots, it will be possible to specify the number of variations of which any particular knot is capable if its conditions of symmetry are known, and the number of these variations determines how many patterns can be made by combining them in different ways. What has been described as central symmetry is called the right- or left-handedness of a knot, because when a curve, such as the letter S (which has central symmetry), is turned over upon itself, the direction of the spiral twist of the curves is reversed, and it becomes left-handed, thus, Σ .

In Celtic ornament the knots are arranged either in horizontal or vertical rows, and therefore these are the only two directions taken account of in altering the position of a knot. The variations of which the different kinds of knots are capable are as follows :—

If a knot is unsymmetrical (as those marked C, L, and M on the plate, p. 242), it can be varied in only eight different ways, for it can be placed in four positions, facing to the right or left, or up or down, and in each of these positions it may be made a right- or left-handed knot.

If a knot has central symmetry only (as those marked E, F, H, and K on the plate, p. 242), it can be varied only in four different ways, for it can be placed in two positions, facing either vertically or sideways, and in each of these positions it may be made a right- or left-handed knot.

If a knot has axial symmetry only (as those marked A, B, D, and N on the plate, p. 242), it can be varied only in four ways, for it can be placed in four positions, facing to the right or left, or up or down; but it cannot be a right- or left-handed knot.

If a knot has both central and axial symmetry (such as that marked G on the plate, p. 242), it can be varied only in two ways, for it can be placed in two positions, facing vertically or sideways, but it cannot be a right- or left-handed knot.

The possible combinations which result from these variations can be calculated mathematically by the theory of permutations; and when the ends of the cords come out in the right direction for joining on to the ends of the next, all these combinations are practicable.

2. Knots can be arranged in two or more parallel rows, which gives rise to more combinations as regards the position or direction of twist of the knot than are possible with single rows.

3. The knot can be made with two or more parallel bands instead of a single one.

4. In patterns where the knot is composed of a double band, one can be crossed over the other instead of being carried forward parallel (see figs. 92, 118, and 119).

5. In patterns where the knot is composed of a double band, one can be joined up to the other at intervals so as to reduce the two bands to a single one in the intermediate portion (see figs. 133 and 139).

6. An additional band can be woven through or placed beside the elementary knot, and by this means it is often possible to combine knots

whose ends do not come out in a suitable direction for joining on to those of the next.

7. Different elementary knots can be combined in one row, instead of the same knot being repeated over and over again.

8. The curved loops of the knots can be made pointed like a Gothic arch.

9. Straight bands, with square or sharp angles, can be substituted for curved ones, and the angles of the crossing of the bands can be also considerably varied.

The following is a description of the illustrations which accompany this portion of the paper:—

PLAIT-WORK.

Twists, figs. 1 to 5.

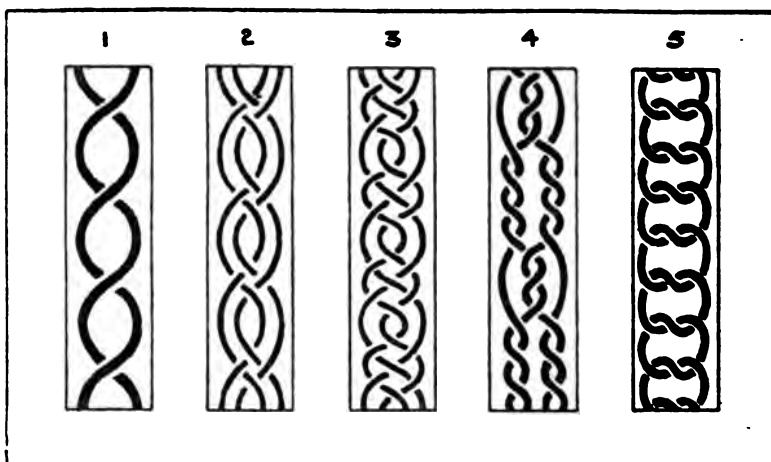


FIG. 1.—Twist. This is the simplest form of interlacement, and consists of two bands, which lap over and under each other at regular intervals. A twist may also be regarded as being composed of two waved lines placed one upon the top of the other. It is generally used in Celtic decoration for ornamenting the edges of stones, or in any position where a narrow

border is required. It may here be remarked that the illustrations are drawn with a view to showing the methods of interlacement in the clearest way possible, and not with any idea of reproducing the decorative effects of the sculptured stones or the MSS. ; the bands are therefore shown far apart instead of close together.

- FIG. 2.—Twist, with double parallel bands instead of single ones.
 FIG. 3.—Two twists combined. This pattern can be produced by drawing two twists on tracing paper and placing one upon the top of the other. A double band twist (fig. 2) and a four-cord plait (fig. 22) may be obtained in the same way, by altering the position of the upper sheet of tracing paper.
 FIG. 4.—An ingenious arrangement of four bands, combined alternately into two twists parallel to each other, and into a single twist with two bands at each side.
 FIG. 5.—Twists placed horizontally, and the ends joined so as to form a vertical border pattern having the general appearance of a chain. Compare with figs. 7 and 156, which at first sight are somewhat similar.

Looped Cords, figs. 6 to 12.

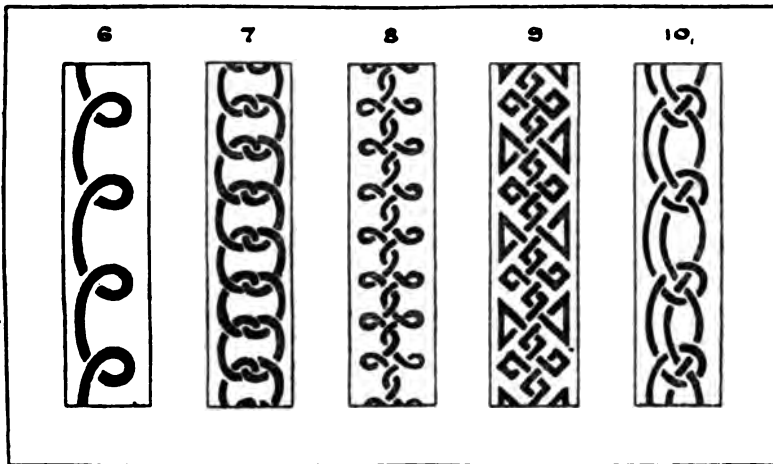


FIG. 6.—Cord with loops at equal intervals on the same side.

FIG. 7.—Two cords looped on same side combined, with loops facing towards each other.

FIG. 8.—Two cords looped on same side combined, with loops facing away from each other.

FIG. 9.—The same pattern as the preceding, but with the loops made alternately square and triangular.

FIG. 10.—A cord looped on the same side combined with a twist.

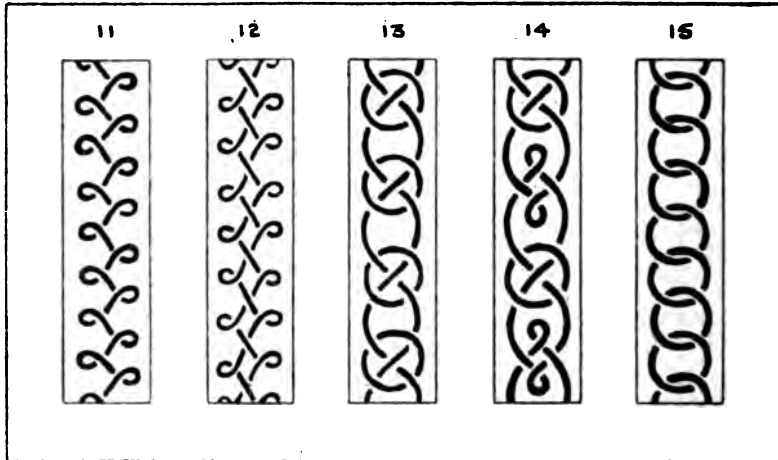


FIG. 11.—A cord with loops at equal intervals on opposite sides.

FIG. 12.—Two cords looped on opposite sides combined, the same pattern being the result whichever way the loops are made to face.

Twists and Rings, figs. 13 and 14.

FIG. 13.—A twist, with the crossings of the bands emphasised by rings placed round them. The same principle is also applied to plaits (see fig. 32).

FIG. 14.—The same as the preceding, except that every other crossing of the twist is looped in a peculiar manner instead of having a ring round it.

Chains of Rings, figs. 15 to 18.

FIG. 15.—A chain, composed of circular rings linked together so as to form a continuous pattern.

FIG. 16.—A row of rings threaded upon a straight band.

FIG. 17.—A chain of linked rings threaded upon a straight band.

FIG. 18.—A pattern developed from the preceding, and consisting of two bands pierced with circular holes at equal intervals and narrowed between each, interwoven one with the other. This is a very peculiar pattern, and occurs in Great Britain only in the Isle of Man and the adjacent parts of Cumberland and Anglesey. As the stones in this district are partly Scandinavian, and as the same ornament occurs on a rune-inscribed fort at Gallstad Church, Westgotland, and is not found on any of the purely Celtic stones or MSS., this design may be fairly said to be of Scandinavian origin.¹

Miscellaneous Patterns derived from Twist, figs. 19 and 20.

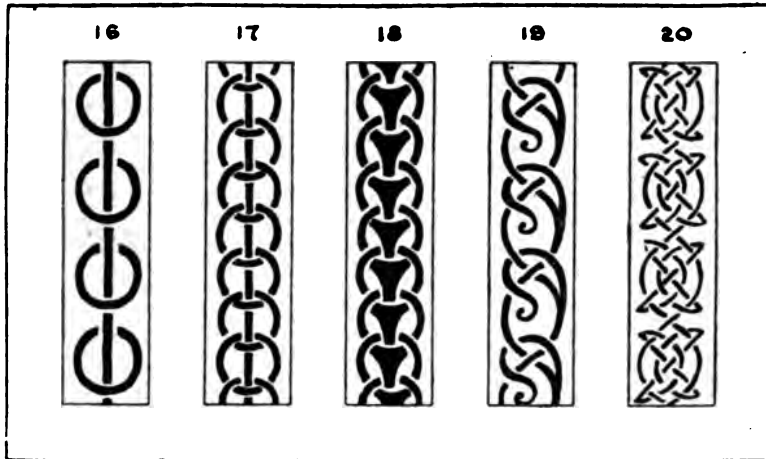


FIG. 19.—A twist partially developed into a leafy scroll. This pattern is entirely confined to the stones of the Isle of Man.

FIG. 20.—A twist combined with an interlaced ring recurring at intervals.

Plait, fig. 21.

FIG. 21.—A three-cord plait. A plait consists of three or more cords passing under and over each other in regular succession, and is exactly the same as a plain woven fabric, except that the cords run diagonally instead of lengthwise and crosswise. A three-cord plait may be made by combining a twist with a waved line, and a four-cord plait by combining two twists.

¹ German Catalogue of the Stockholm Museum, by Oscar Montelius, p. 121.

Stopped-off Plaits, figs. 23 to 28.

The process which I term stopping-off a plait consists of joining up any pairs of cords instead of carrying them forward, thus leaving blank spaces in different positions.

FIG. 22.—A four-cord plait, stopped off so as to leave a vertical space in the centre of the plait at regular intervals.

FIG. 23.—A six-cord plait, stopped off so as to leave a horizontal space in the centre of the plait at regular intervals.

FIG. 24.—A six-cord plait, stopped off so as to leave a cross-shaped space in the centre of the plait at regular intervals.

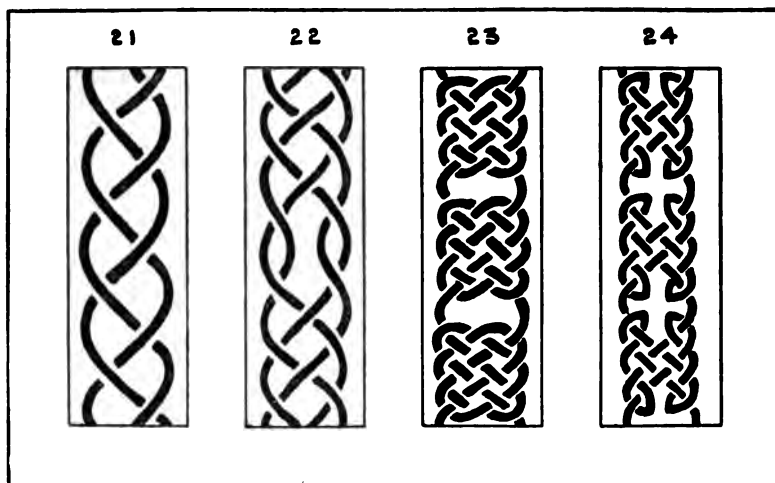
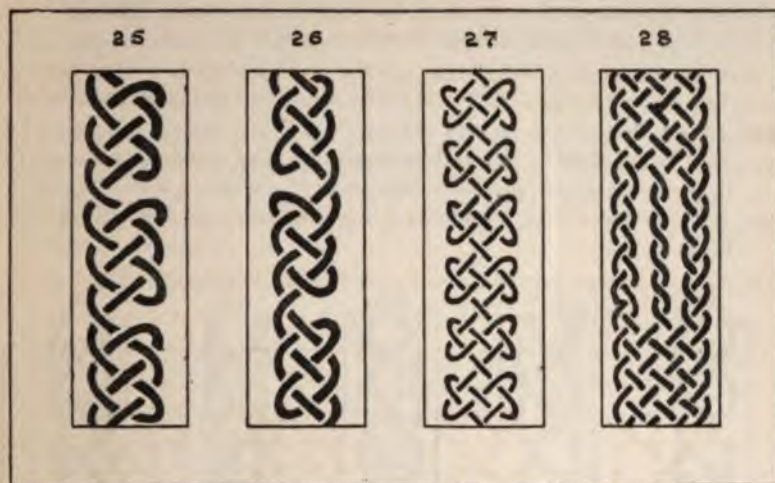


FIG. 25.—A four-cord plait, stopped off so as to leave spaces at regular intervals on one side of the plait only.

FIG. 26.—A four-cord plait, stopped off so as to leave spaces at regular intervals on each side of the plait alternately.

FIG. 27.—An eight-cord plait, stopped off so as to leave spaces at regular intervals on both sides of the plait.

FIG. 28.—An eight-cord plait, stopped off so as to leave two vertical spaces in the centre of the plait, the eight cords being combined into one twist and two three-cord plaits.



Plaits looped along the edges, figs. 29 to 31.

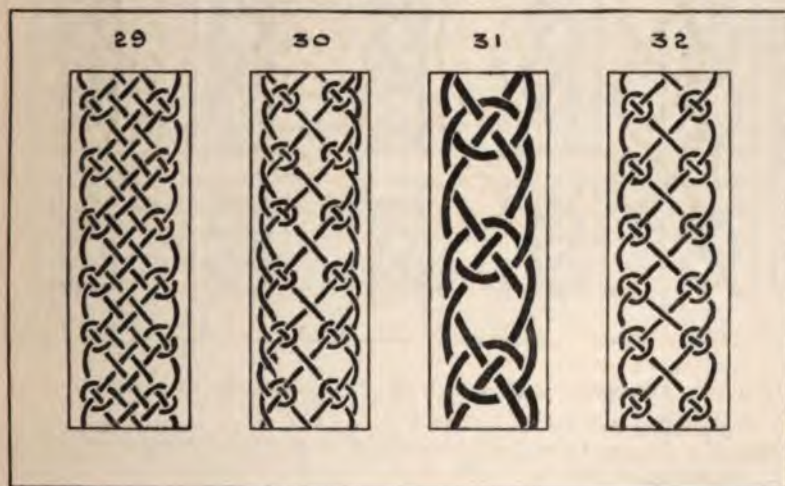


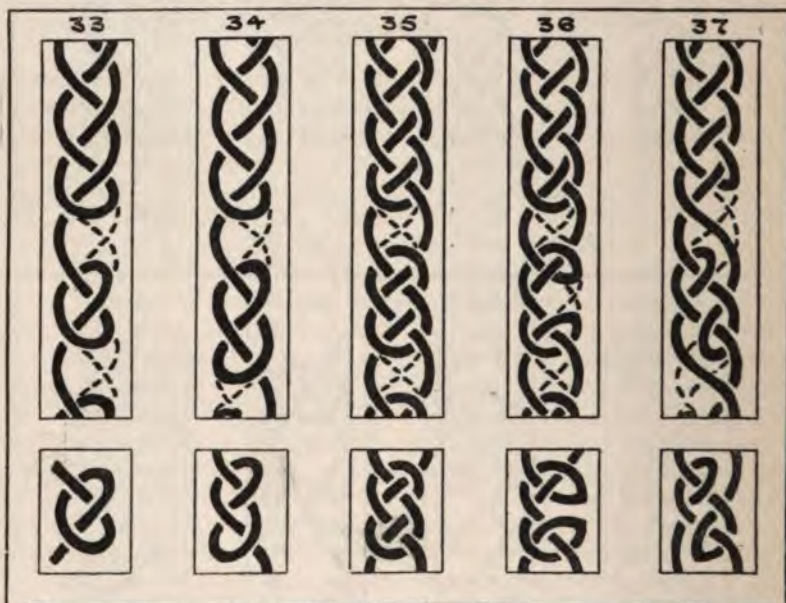
FIG. 29.—A ten-cord plait, stopped off so as to form loops along each side facing outwards.

FIG. 30.—The same as the preceding, but with the loops facing inwards.

FIG. 31.—A six-cord plait, stopped off so as to form loops in the centre.

Plait and Rings, fig. 32.

FIG. 32.—A four-cord plait, with the crossings of the bands emphasised by rings round them. This pattern presents a very similar appearance to those on figs. 29 and 30; and as both occur on the stones of the south-west of Scotland and rarely elsewhere, it is probable that one was derived from the other.



Development of Knot-work out of Plait-work, figs. 33 to 37.

It is possible that the knots which are used in Celtic ornamentation were derived from plaits by the process of stopping off, as shown in the accompanying illustration.

FIG. 33.—Development of elementary knot A (see the plate on p. 242) from a three-cord plait.

FIG. 34.—Development of knot H (plate on p. 242) from a three-cord plait.

FIG. 35.—Development of knot G (plate on p. 242) from a four-cord plait.

FIG. 36.—Development of knot D (plate on p. 242) from a four-cord plait.

FIG. 37.—Development of knot F (plate on p. 242) from a four-cord plait.

Note.—Knot C (plate on p. 242) cannot be derived from a plait by stopping off, but it may have been suggested by knot D which can. The only difference between knot C and half knot D, is that the former has a quarter of a turn more spiral twist than the latter, causing the end of the cord to come out at the top instead of at the side.

KNOT-WORK.

The knots which occur in Celtic ornament are different from those used by sailors or for the practical requirements of everyday life; and although they can be tied in string, when the ends are pulled a confused tangle is generally the result. These knots, therefore, must be looked upon simply as geometrical arrangements of curved lines following a continuous path, but crossing and recrossing at intervals, the variations being due to the numbers of crossings and changes in direction of the path.

In Celtic work the elementary knots are seldom composed of more than two cords; and when the number is greater, the extra cords are either placed at the side to join on to the next knot or woven through it in straight lines. The present investigation is consequently confined to knots formed of either one or two cords. The one-cord knots are looked upon as two-cord knots with two of the ends joined up, and the same method of investigation is applicable to both, being as follows:—Consider the two cords at starting always to lie along the diagonals of a square, and the intersection of the diagonals or the centre of the square to be the first crossing, which is taken as a datum to work from. The knot is then formed by bending one or both of the cords spirally round the centre, and after a certain number of crossings and revolutions, joining two of the ends if it is to be a one-cord knot, and leaving all four ends loose if it is to be a two-cord knot.

Different Ways of beginning to form a Knot, figs. 38 to 42.

FIG. 38.—One end of one cord bent round the other.

FIG. 39.—Both ends of one cord bent round the other in the same direction.

FIG. 40.—Both ends of one cord bent round the other in opposite directions.

FIG. 41.—One end of each cord bent round the other in the same direction.

FIG. 42.—One end of each cord bent round the other in opposite directions.

Methods of Crossing and Changing Direction, figs. 43 to 46.

When one cord crosses over another, it may do so in any of the following ways:—

1. One cord may pass under or over the other.
2. One cord may twist round the other, thus reversing its direction.
3. One cord may make a right-handed loop round the other.
4. One cord may make a left-handed loop round the other.

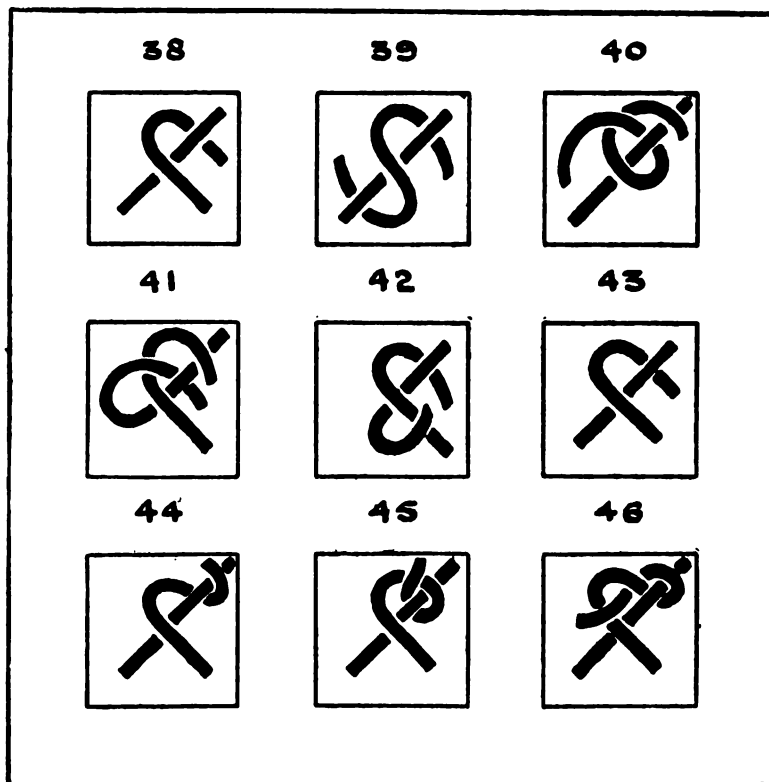


FIG. 43.—Plain crossing.

FIG. 44.—Twist crossing.

FIG. 45.—Right-handed loop crossing.

FIG. 46.—Left-handed loop crossing.

Note.—In the knots which follow, one cord is bent round the other in a plain spiral curve, preserving the same direction all through; but further complications may be introduced by causing the direction of the spiral to be reversed by making one cord twist or loop round the other. A cord may also loop round itself or make an S curve, so as to change its direction between any two crossings.

One-cord Knots, figs. 47 to 61.

All the following knots are formed by placing the two cords along the diagonals of a square, and taking the loose end which lies at the left hand upper corner, and bending it round spirally to the right, finally joining it with either the upper or lower end of the other cord. When the spiral twist is single, that is, when it makes only one turn round the centre, no variations are possible; but when the spiral twist is double, the inside spiral can run parallel to the outside one, or cross over it in each quarter of the square, thus giving rise to a fresh series of knots after each crossing.

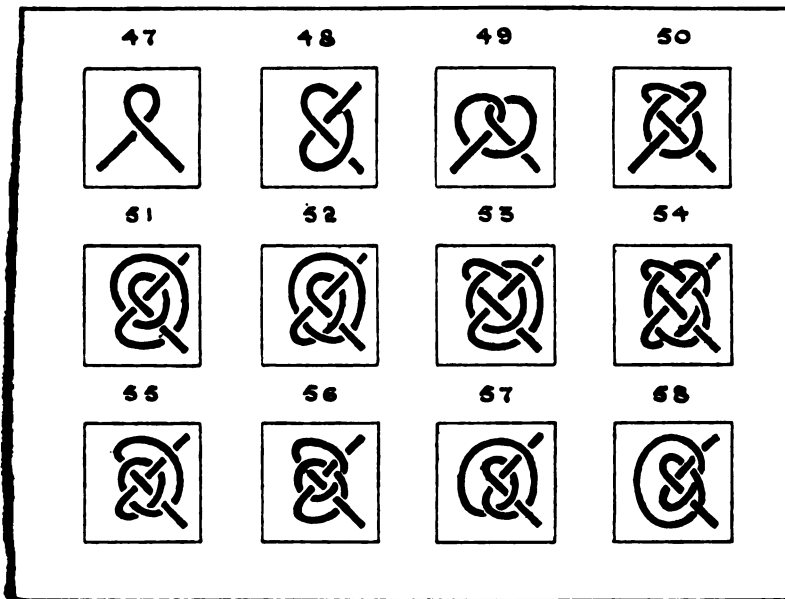
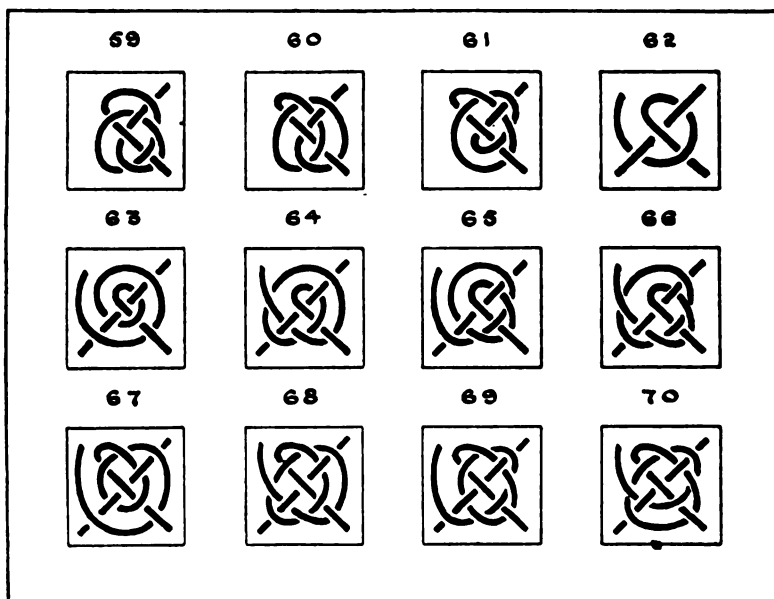


FIG. 47.—Upper end of first cord, bent round spirally to the right and joined with upper end of second cord, thus forming a simple loop.

FIG. 48.—Upper end of first cord bent round spirally to the right, and joined with lower end of second cord, thus forming the simplest kind of knot.

FIG. 49.—Upper end of first cord bent round twice spirally to the right, and joined with upper end of second cord.

FIG. 50.—The same as the preceding, except that the inside spiral crosses the outside one twice instead of once.



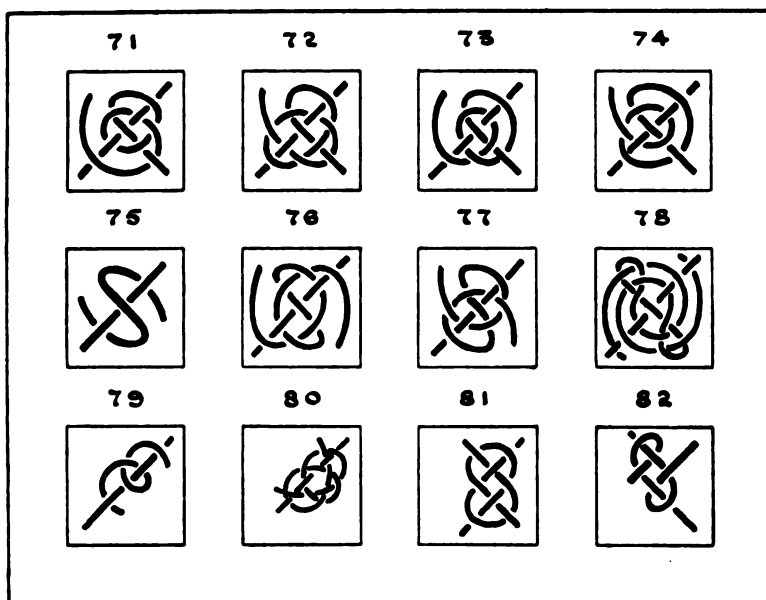
FIGS. 51 TO 61.—The upper end of the first cord bent round twice spirally to the right and joined with the lower end of the second cord, the variations being produced by the inside spiral crossing over the outside one in different quarters of the square.

Two-cord Knots formed by bending one end of one cord round the other, figs. 62 to 74.

FIG. 62.—The upper end of the first cord bent round once spirally towards the right, whilst the second cord remains unaltered.

FIGS. 63 TO 74.—The upper end of the first cord bent round twice spirally towards the right, whilst the second cord remains unaltered, the variations being produced by making the inside spiral cross over the outside one in different quarters of the square.

Two-cord Knots, formed by bending both ends of one cord round the other in the same direction, figs. 75 to 78.



Two-cord Knots, formed by bending both ends of one cord round the other in opposite directions, figs. 79 and 80.

Two-cord Knots, formed by bending each end of both cords round the other in opposite directions, figs. 81 and 82.

Elementary Knots used in Celtic Ornament, see the plate on p. 242.

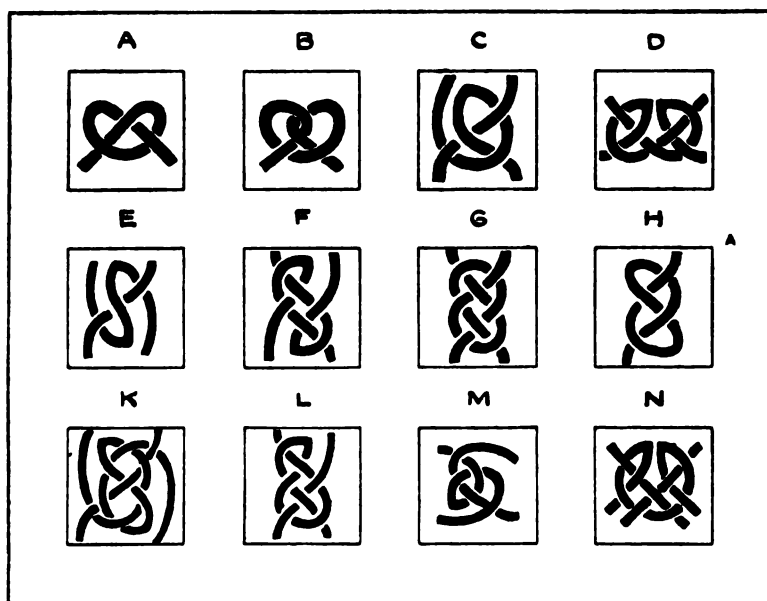
The number of possible knots which can be formed out of one or two cords, although large, is strictly limited by geometrical conditions. The ones which occur in Celtic ornament are only a small portion of the total possible number of knots, and the result of a minute examination of all the accessible illustra-

tions of Celtic sculptured stones and MSS. is comprised in the twelve elementary knots A to N (see below), which form the basis of the whole system of decoration. The methods used for producing patterns of great apparent complication out of such simple elements have already been explained, and will be fully understood later on. The artists who illustrated the MSS. probably learnt to draw all the elementary knots with ease (as a stitch in knitting or needle-work is got off by heart) before they attempted to commence their work.

PLATE OF ELEMENTARY KNOTS (A TO N).

A.—The simplest kind of one-cord knot, the same as that on fig. 48.

B.—A one-cord knot, the same as that on fig. 49.



C.—A two-cord knot with a single spiral twist, the same as that on fig. 62.

D.—A double knot, made by placing two knots together like C, but with a quarter of a circle less spiral twist. It may also be looked upon as a single knot composed of two cords, made by bending two ends of each cord round the other in opposite directions.

side, and placed facing each other. Compare with fig. 94, where, by adding a second additional band and introducing loops, a pleasing ornament is produced.

FIG. 86.—Knot A in double row, facing outwards, the inner bends of the knots being made to overlap.

FIG. 87.—Knot A in double row, facing outwards, without overlapping as in the previous case.

FIG. 88.—Knot A in double row, facing inwards, two additional bands being interwoven so as to connect the two rows together, which would be otherwise disconnected, as will be seen by placing two such patterns as that shown on fig. 83 facing each other.

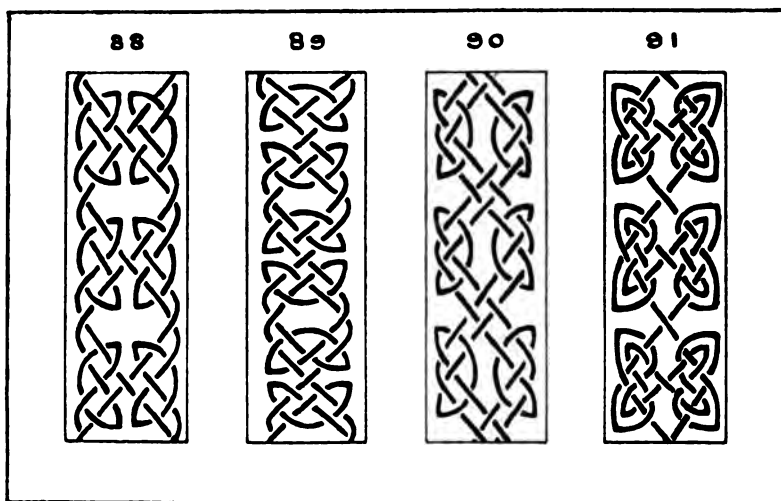


FIG. 89.—Knot A in single row, facing alternately upwards and downwards, two additional bands being added to enable the pattern to be made continuous, which would not be otherwise possible.

FIG. 90.—Knot A in double row facing outwards, and with two additional bands interwoven.

FIG. 91.—A variation lying between the patterns on figs. 87 and 93. Compare also with fig. 160.

FIG. 92.—A variation on fig. 93, by making the two bands of the knot cross over each other instead of letting them run on parallel.

FIG. 93.—Knot A, with double parallel bands instead of a single one, in double rows, facing outwards.

FIG. 94.—Knot A in single row, facing alternately to the right and left, and combined with three extra bands, two woven through the knot and the other placed at the side; loops are also introduced at intervals.

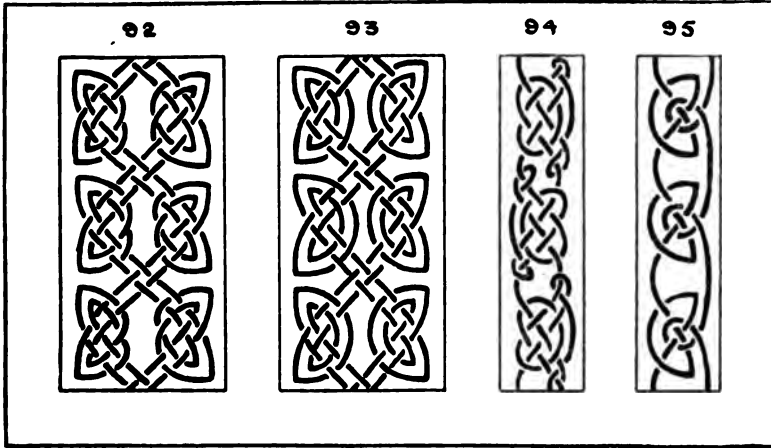


FIG. 95.—Knot A in single row, all facing to the right, combined with a cord looped on one side at intervals and interwoven with it.

Combinations of Elementary Knot B, figs. 96 and 97.

This knot has axial but not central symmetry, and is therefore capable of four variations only, as it can be placed facing to the right or left, or up or down, but has no right- or left-handed twist. All the possible combinations which result from the variations of the different knots are not always shown, but only a sufficient number to illustrate the principle involved. Many combinations are useless on account of the ends of the bands coming out in a position or in a direction unsuitable for joining on to the ends of the next knot.

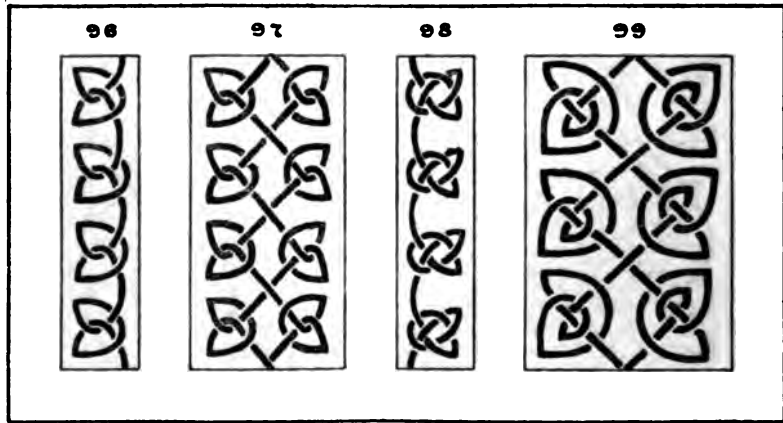
FIG. 96.—Knot B in single row, all facing to the left.

FIG. 97.—Knot B in double row, facing outwards.

Combinations of Elementary Knot shown on fig. 50.

This knot has axial but not central symmetry, and is therefore capable of four variations only, as it can be placed facing to the right or left, or up or down, but has no right- or left-handed twist.

FIG. 98.—Knot (fig. 50) in single row, all facing to the right.

*Combinations of Elementary Knot shown on fig. 51.*

This knot is wholly unsymmetrical, and is therefore capable of eight variations only, as it can be placed facing to the right or left, or up or down, and can have a right- or left-handed twist in each of these positions. A large number of combinations result from these variations, only one of which, however, is shown.

FIG. 99.—Knot (fig. 51) in double row facing outwards, one row being all right-handed knots and the other all left-handed.

Combinations of Elementary Knot B distorted, fig. 100.

Knot B has been shown to have axial symmetry, but it can be distorted by enlarging one of the loops, and thus be made wholly unsymmetrical, and is then capable of being right- or left-handed. In comparing two knots to see whether they are the same, count the number of spaces between the cords, noticing their relative position and the number of sides or cords bounding each space. This will be found necessary, as by a slight amount of distortion a knot may be rendered almost unrecognisable.

FIG. 100.—Knot B distorted in double row facing outwards, each row being composed of right- and left-handed knots alternately, and one extra band interwoven through each knot.

Combinations of Elementary Knot C, figs. 101 to 120.

This knot is entirely unsymmetrical, and is therefore capable of eight variations only, as it can be placed facing to the right or left, or up or down, and can be made right- or left-handed in each of these positions.

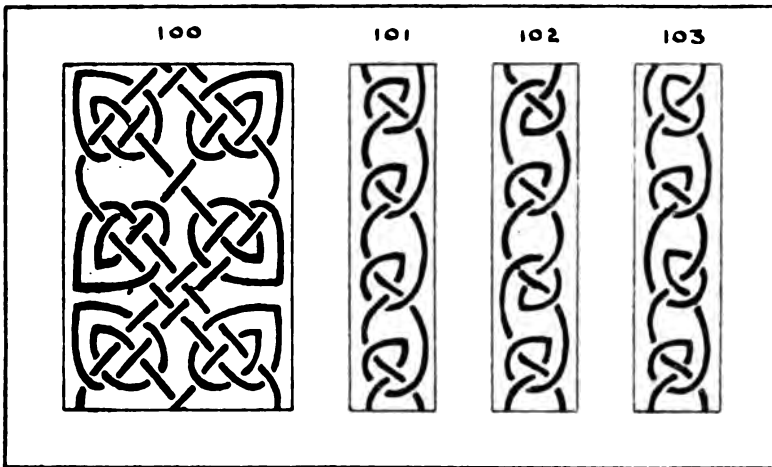


FIG. 101.—Knot C in single row, all right-handed, and all facing upwards.

FIG. 102.—Knot in C in single row, all right-handed, but facing alternately upwards and downwards.

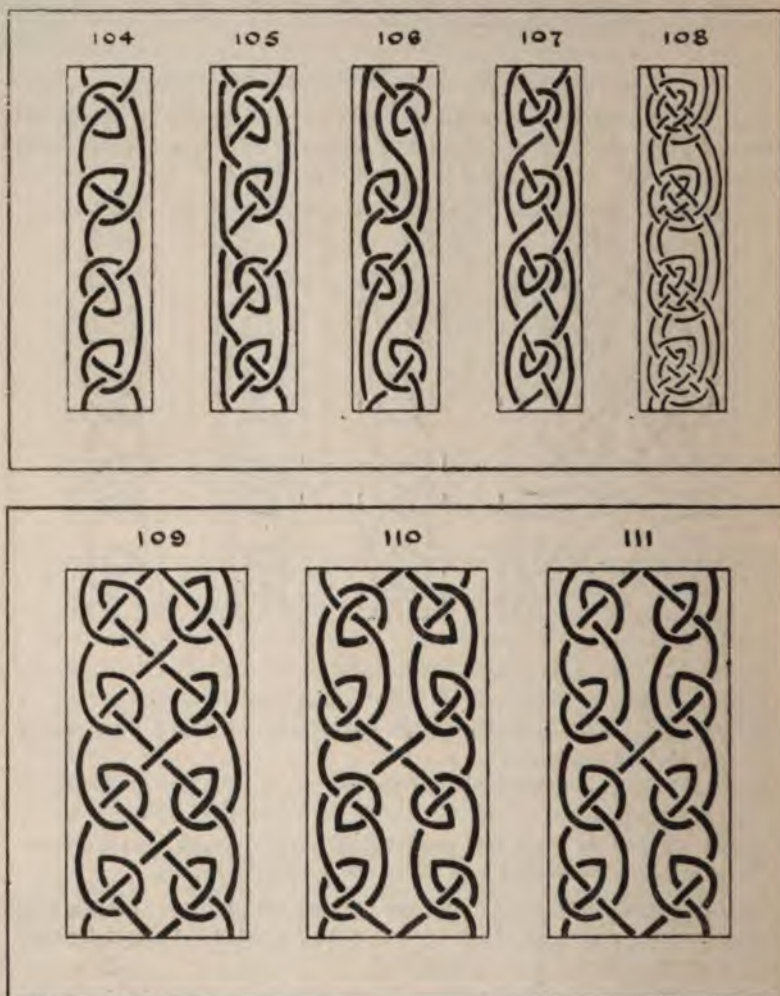
FIG. 103.—Knot C in single row, alternately right- and left-handed knots, but all facing upwards.

FIG. 104.—Knot C in single row, composed of a right-handed knot facing upwards, and a left-handed knot facing downwards alternately.

Note.—This exhausts the combinations in single row, because when the knot is placed sideways the ends of the cords do not come out in the proper direction for joining on to the ends of the next knot.

FIG. 105.—Knot C combined with an extra band on one side, in single row, composed of right-handed knots facing upwards, and left-handed knots facing downwards alternately.

FIG. 106.—Knot C combined with an extra band on one side, in single row,



composed entirely of right-handed knots, facing alternately upwards and downwards.

FIG. 107.—Knot C combined with two extra bands, one on each side, in single row, composed entirely of left-handed knots facing downwards.

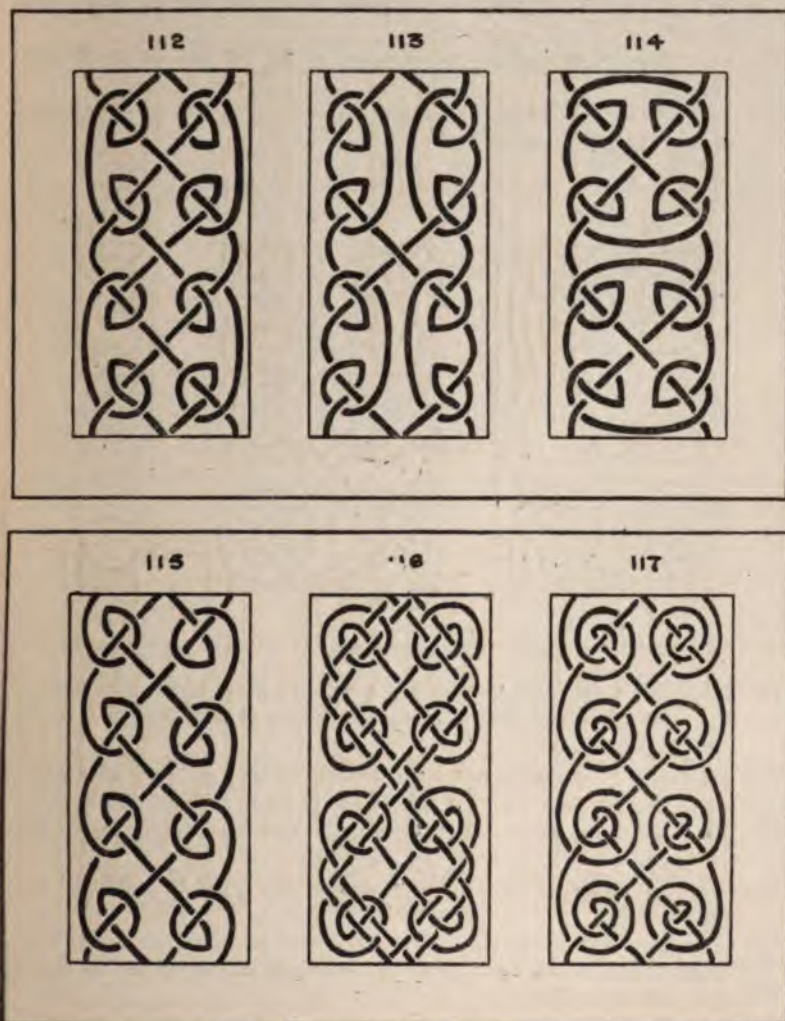
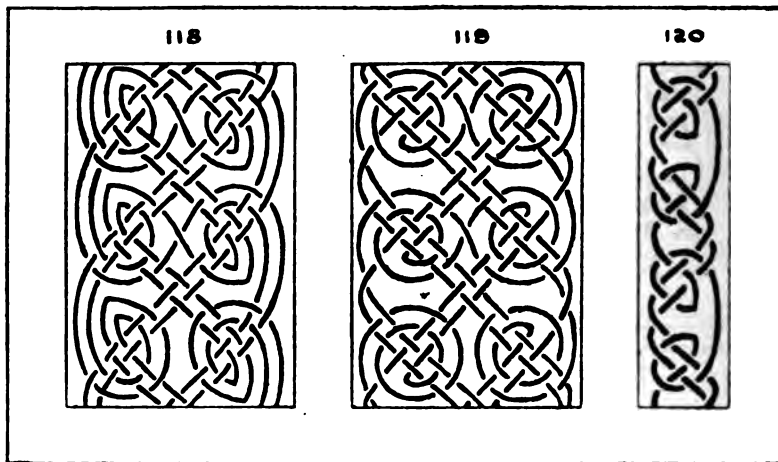


FIG. 108.—The same as fig. 101, but with double band.

- FIG. 109.—Knot C in double row, composed of fig. 101 and its symmetrical opposite.
 FIG. 110.—Knot C in double row, composed of fig. 102 and its symmetrical opposite.
 FIG. 111.—Knot C in double row, composed of fig. 103 and its symmetrical opposite.
 FIG. 112.—Knot C in double row, composed of fig. 104 and its symmetrical opposite, placed facing upwards.

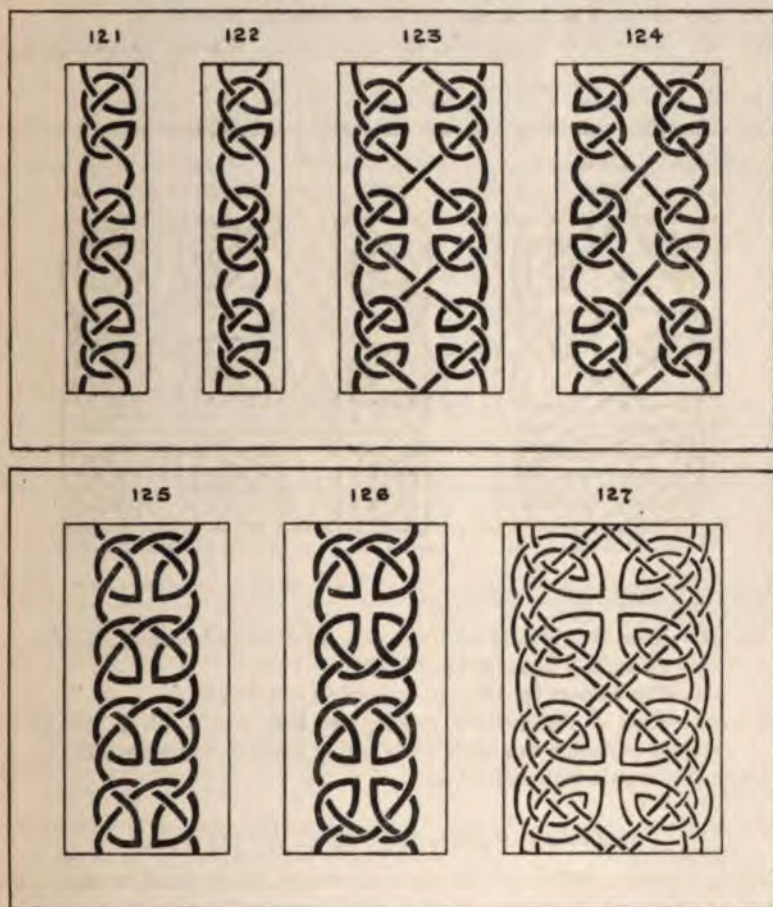


- FIG. 113.—The same as the preceding, but with the knots facing outwards.
 FIG. 114.—Knot C in double row, composed of pairs of knots like those on fig. 112, placed sideways.
 FIG. 115.—Knot C in double row, one composed entirely of left-handed knots, facing upwards, and the other of left-handed knots, facing downwards.
 FIG. 116.—The same as fig. 112, but with an extra band interwoven round each row.
 FIG. 117.—The same as fig. 109, but with a double spiral twist instead of a single one.
 FIG. 118.—The same as fig. 115, but knots formed with a double band, and a variation introduced by crossing the bands in places instead of letting them run on parallel.
 FIG. 119.—The knots arranged as in fig. 115, but with a double spiral twist as

in fig. 117, and an extra band interwoven through each row, a variation being made by crossing the bands, as in the preceding case.

FIG. 120.—The same as fig. 104, but with an extra band interwoven.

Combinations of Elementary Knot D, figs. 121 to 131.



This knot has axial but not central symmetry, and is therefore capable of four variations only, as it can be placed facing to the right, left, up, or down, but it cannot have a right- or left-handed twist.

FIG. 121.—Knot D in single row, all facing to the right.

FIG. 122.—Knot D in single row, the knots facing alternately to the right and left.

FIG. 123.—Knot D in double row, the knots all facing inwards.

FIG. 124.—Knot D in double row, the knots all facing outwards.

FIG. 125.—Knot D in single row, the knots all facing downwards.

FIG. 126.—Knot D in single row, the knots facing alternately upwards and downwards.

FIG. 127.—The same as fig. 123, but with double band.

FIG. 128.—The same as fig. 123, but with extra interlaced band in each row.

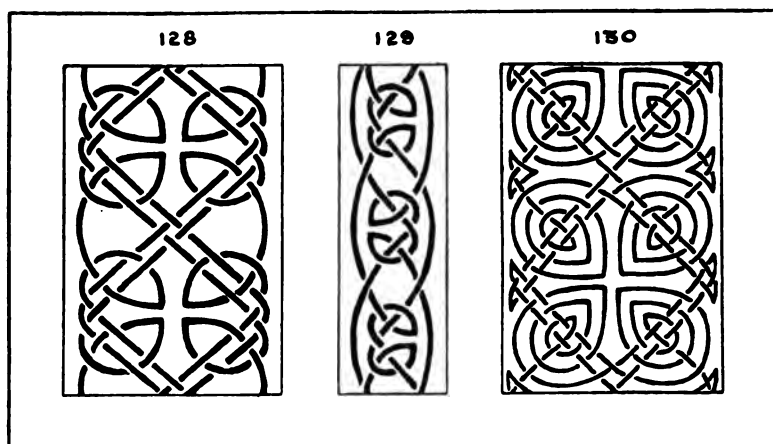


FIG. 129.—Knot D combined with an extra band on each side in single row, facing alternately to the right and left.

FIG. 130.—The same as fig. 126, but with triple spiral twist.

FIG. 131.—Knot D distorted by making one loop smaller than the other, arranged in double row with knots facing inwards, and with extra band interwoven through each knot.

Combinations of Elementary Knot E, figs. 132 to 134.

This knot has central but not axial symmetry, and is therefore capable of four variations only, as it can be placed either vertically or sideways, and in each of these positions it can be made either a right-handed or a left-handed knot.

FIG. 132.—Knot E in single row, all the knots being right-handed and facing vertically. Right and left-handed knots may also be arranged alternately in a single row, though this combination is not shown. The knots will not combine when placed sideways, as the ends of the bands come out in a direction unsuitable for joining on to the ends of the next knot.

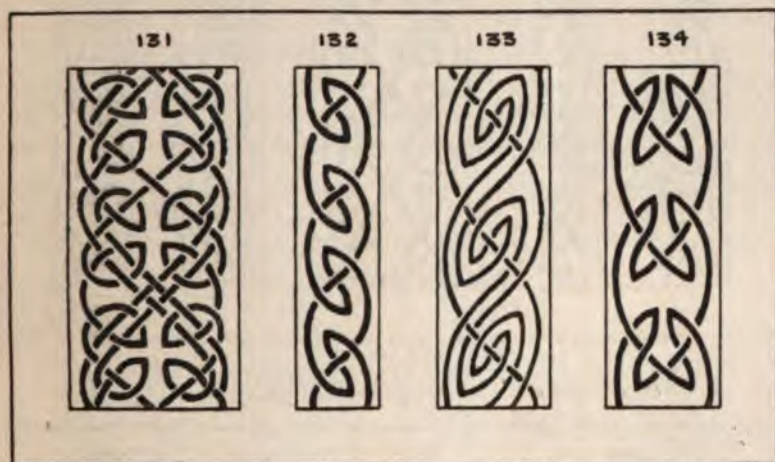


FIG. 133.—Knot E in single row with double twist, and combined with extra band at the side.

FIG. 134.—Knot E in double row, the left hand row consisting of left-handed knots placed vertically, and the right hand row consisting of right-handed knots placed vertically.

Combinations of Elementary Knot F, figs. 135 to 139.

This knot, like the preceding, has central but not axial symmetry, and is therefore capable of four variations only; as it can be placed either vertically or sideways, it can have a right- or left-handed twist in each of these positions.

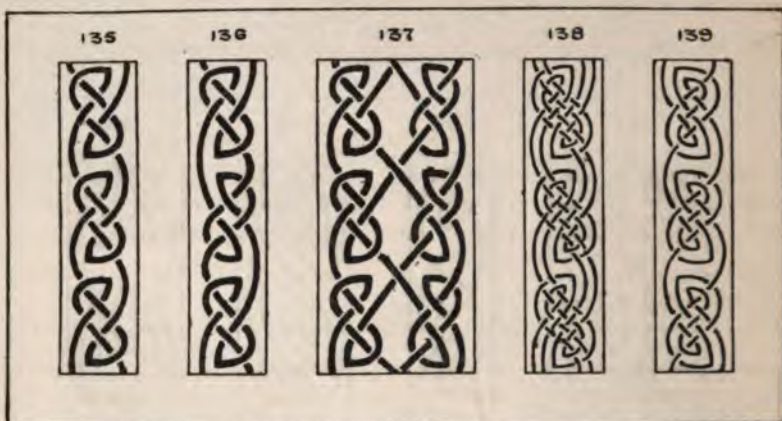
FIG. 135.—Knot E in single row of right-handed knots placed vertically.

FIG. 136.—Knot E in single row of right- and left-handed knots alternately, all placed vertically. A combination may also be made out of right- and left-handed knots alternately, all placed sideways.

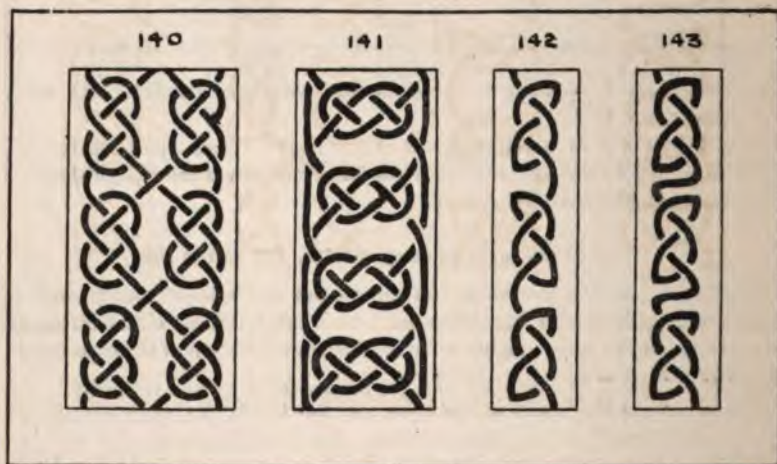
FIG. 137.—Knot E in double row, one entirely composed of right-handed knots and the other of left-handed ones, all placed vertically.

FIG. 138.—The same as fig. 135, but with a double band.

FIG. 139.—A variation midway between fig. 135 and fig. 138.



Combinations of Elementary Knot G, figs. 140 and 141.



This knot has both axial and central symmetry, and is therefore only capable of two variations, as it can be placed either vertically or sideways, but has no

right- or left-handed twist. The number of combinations which result are necessarily fewer than those obtained from any other.

FIG. 140.—Knot G in double rows placed vertically.

FIG. 141.—Knot G in single row placed sideways, and combined with an extra band at each side.

Combinations of Elementary Knot H, figs. 142 to 146.

This knot has central but not axial symmetry, and is therefore capable of four variations only, as it can be placed either vertically or sideways, and in each of these positions the twist can be made right- or left-handed.

FIG. 142.—Knot H in single row of right- and left-handed knots alternately, all placed vertically.

FIG. 143.—Knot H in single row of right-handed knots, all placed vertically.

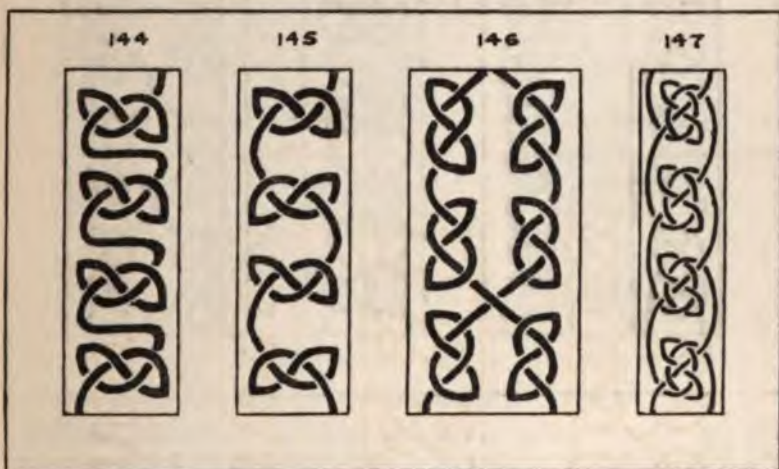


FIG. 144.—Knot H in single row of right-handed knots, all placed sideways.

FIG. 145.—Knot H in single row of right- and left-handed knots alternately, all placed sideways.

FIG. 146.—Knot H in double row, each of right- and left-handed knots alternately, all placed vertically.

Combinations of Elementary Knot K, fig. 147.

This knot has central but not axial symmetry, and is therefore capable of four variations only, and it can be placed either vertically or sideways, and may have a right- or left-handed twist in each of these positions.

FIG. 147.—Knot K in single row of left-handed knots placed vertically.

Combinations of Elementary Knot L, figs. 148 to 151.

This knot, like C, is altogether unsymmetrical, and is therefore capable of eight variations only, as it can be placed facing to the right, left, up, or down, and can also have a right- or left-handed twist in each of these positions.

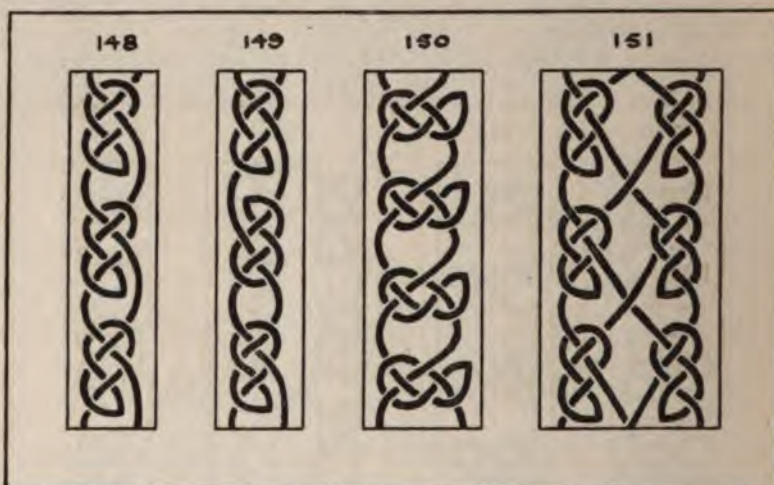


FIG. 148.—Knot L in single row of right-handed knots, all facing downwards.

FIG. 149.—Knot L in single row of right-handed knots, facing alternately upwards and downwards.

FIG. 150.—Knot L in single row of right-handed knots, all facing to the right.

FIG. 151.—Knot L in double row, one of right-handed and the other of left-handed knots, all facing downwards.

A large number of other combinations, not shown, may be made as in the case of knot C, by varying the position and right- or left-handedness of the knot.

Combinations of Elementary Knot M, fig. 152.

This knot is altogether unsymmetrical, and is therefore capable of eight variations only, as it can be placed facing to the right, left, up, or down, and may also have a right- or left-handed twist in each of these positions.

FIG. 152.—Knot M in single row of left-handed knots, all facing upwards.

Combinations of Elementary Knot N, figs. 153 to 155.

This knot has axial but not central symmetry, and is therefore capable of four variations only, as it can be placed facing to the right or left, or up or down; but the knot cannot have a right- or left-handed twist.

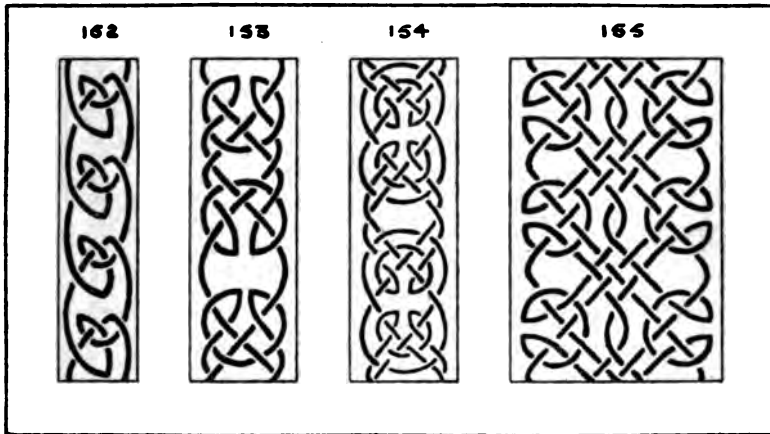


FIG. 153.—Knot N in single row of knots, facing alternately upwards and downwards.

FIG. 154.—The same as the preceding, but with an extra band round the outside.

FIG. 155.—Knot N in double row of knots, facing outwards.

Combinations of Crossed Rings, figs. 156 to 160.

A crossed ring is the same shape as the figure 8.

FIG. 156.—Crossed rings in single row, placed sideways and overlapping, so as to form a chain.

FIG. 157.—Crossed rings in single row, placed vertically and overlapping, so as to present the appearance of a series of knots.

FIG. 158.—Crossed rings in single row, placed vertically, and combined with an interlaced band, taking the form of a waved line. This pattern may have been derived from a three-cord plait by stopping off.

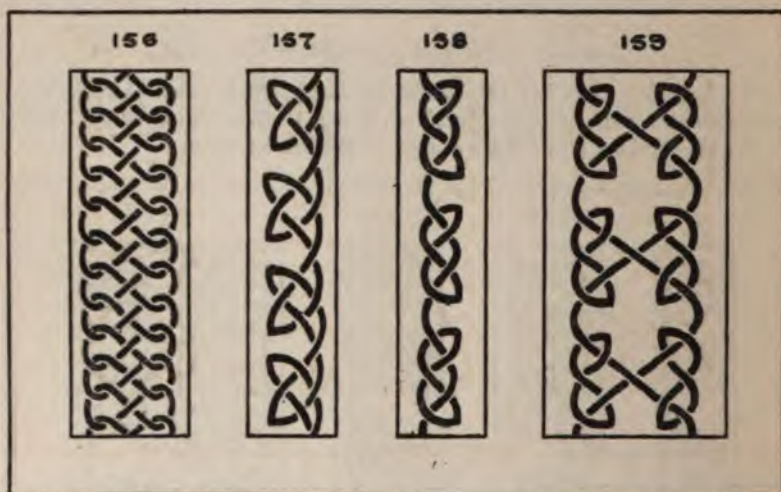


FIG. 159.—Crossed rings in double row, combined with interlaced bands.

FIG. 160.—The same as the preceding, but with additional rings interlaced.

Combinations of Miscellaneous Knots, figs. 161 to 166.

The following patterns do not occur sufficiently often to be treated as types of a class, and are therefore considered as miscellaneous.

FIG. 161.—Pattern composed of two bands of the form of lines waved diagonally, placed one above the other, and interlaced.

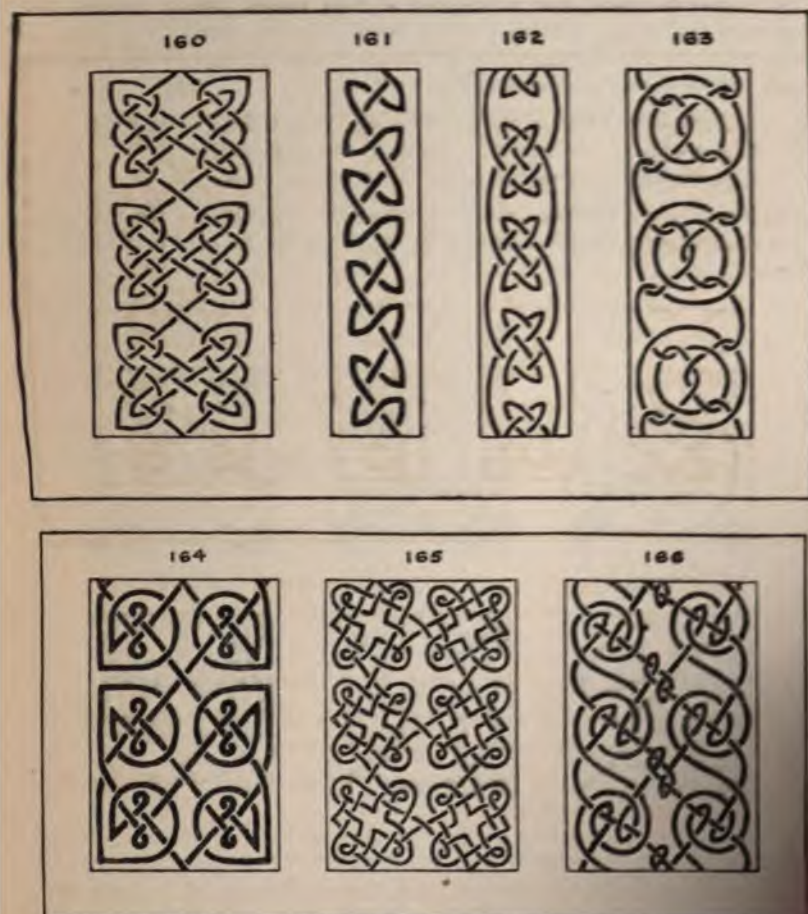
FIG. 162.—Pattern somewhat similar to the preceding, but the waved bands having S-shaped curves.

FIG. 163.—Pattern composed of two bands formed into concentric circles, with twists where the bands cross.

FIG. 164.—The element from which this pattern is made up is like knot D, with loops introduced.

FIG. 165.—This element here resembles a cross, with loops at the ends of the four arms.

FIG. 166.—The element of this pattern consists of two cords, looped spirally round a third.



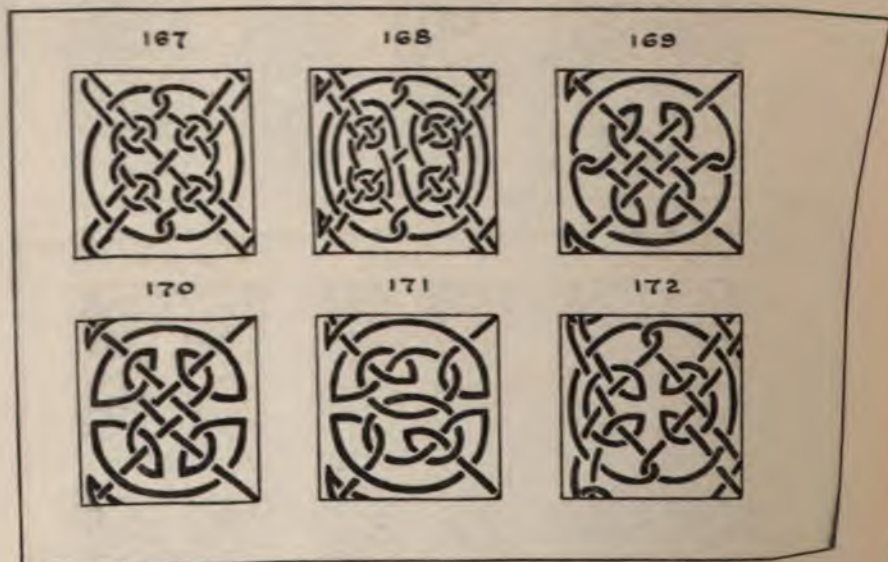
Circular Elementary Knots, figs. 167 to 184.

On the following figs. are shown a special type of more elaborate element

knots than those previously described, to which I have given the name of circular knots, because they always have a circular band running round the outside, with breaks in it where it turns inwards and forms itself into ordinary elementary knots, which are all enclosed within the encircling band. Two bands generally cross each other at right angles, passing through the centre of the circle. The ends of the bands come out singly or in pairs at four points on the circumference of the circle, with an angle of 90° between each. These knots may be classified—

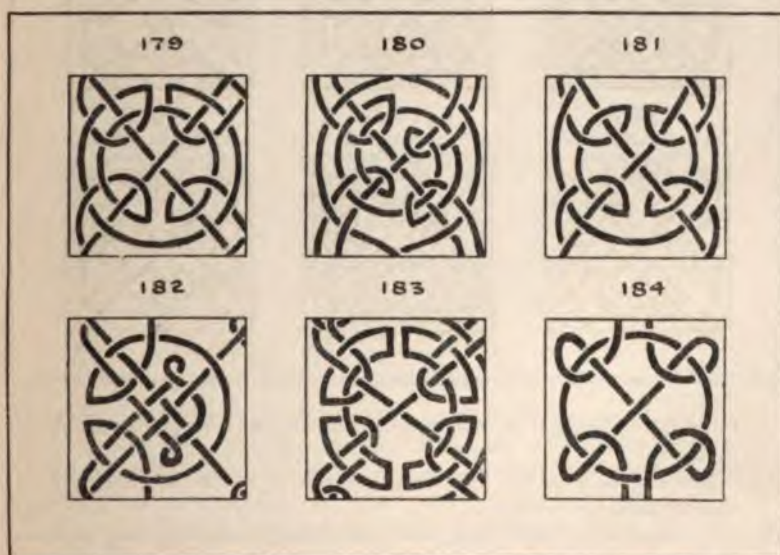
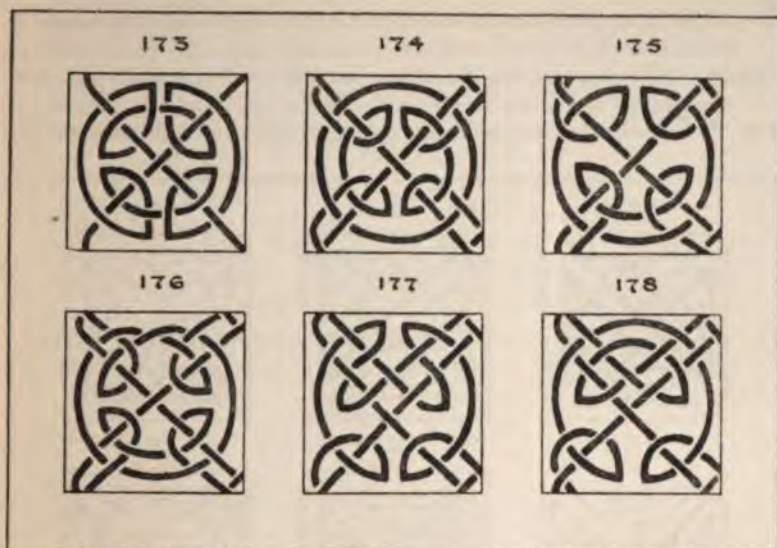
1. According to form of the knots enclosed within the circular band.
2. According to the number of breaks in the encircling band.
3. According to the way in which the breaks are made.

The idea of these circular knots may have been suggested by the combination of elementary knot A shown on fig. 89, where the backs of the knots are circular.



The elementary knots of circular form which follow can all be made into patterns by combining them in single or double rows in the same way as has been explained for the common elementary knots.

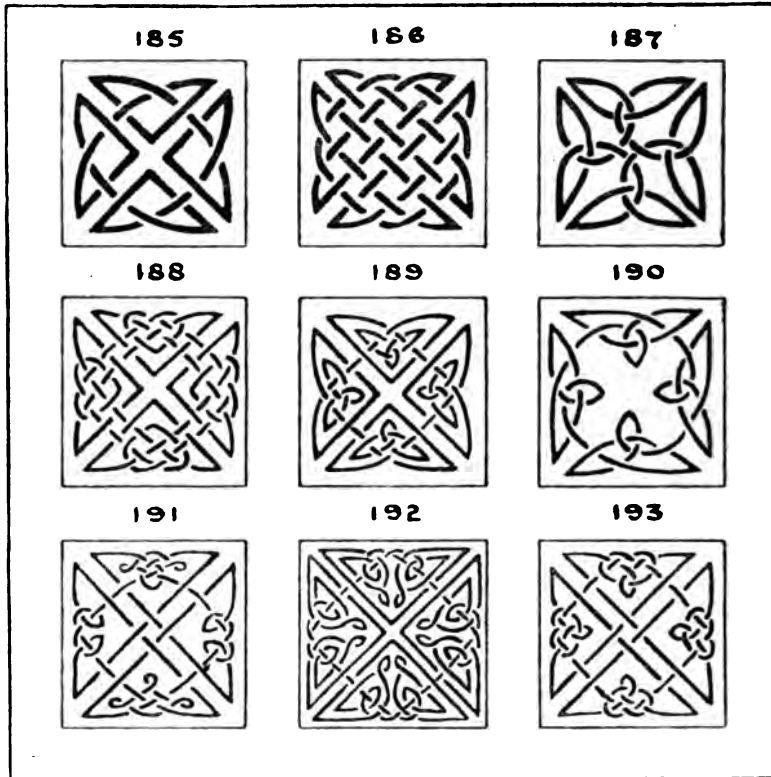
FIG. 167.—Encircling band with two breaks, where one cord twists round the



other and turns inwards, enclosing two ordinary elementary knots D facing each other on each side of the diameter.

FIG. 168.—The same as the preceding, but with an extra S-shaped band introduced.

FIG. 169.—Encircling band with two breaks, where one cord twists round the



other and turns inwards, enclosing the knot derived from plait-work shown on fig. 24.

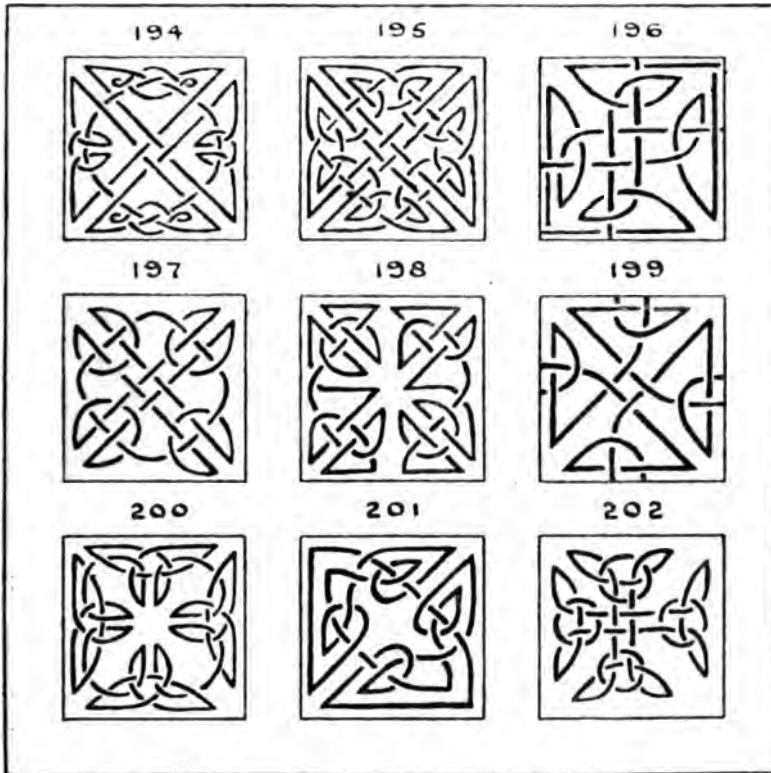
FIG. 170.—The same as the preceding, but with open breaks where the encircling band turns inwards.

FIG. 171.—Encircling band with two open breaks, enclosing two ordinary

elementary knots C and other interlacements, formed by one cord making twists round the other.

FIG. 172.—Encircling band with two twisted breaks, enclosing two ordinary elementary knots N facing each other on each side of the diameter.

FIG. 173.—Encircling band with two open breaks, where the band turns in-

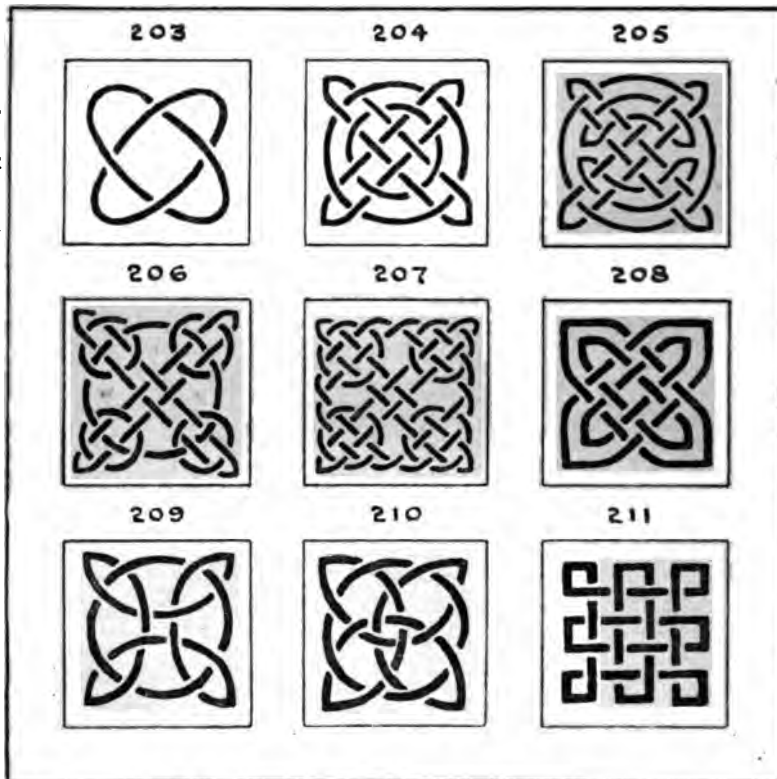


wards and forms itself into pointed loops round two bands which cross each other at right angles through the centre. The backs of the loops being rounded makes the knot, taken as a whole, present the appearance of two concentric circles.

FIGS. 174 TO 184.—Different variations of the preceding.

Squares divided diagonally, and filled in with Knot-work, figs. 185 to 202.

In the following figs. squares are filled in with knot-work by repeating the same element in each quarter of the square which has been divided by the two

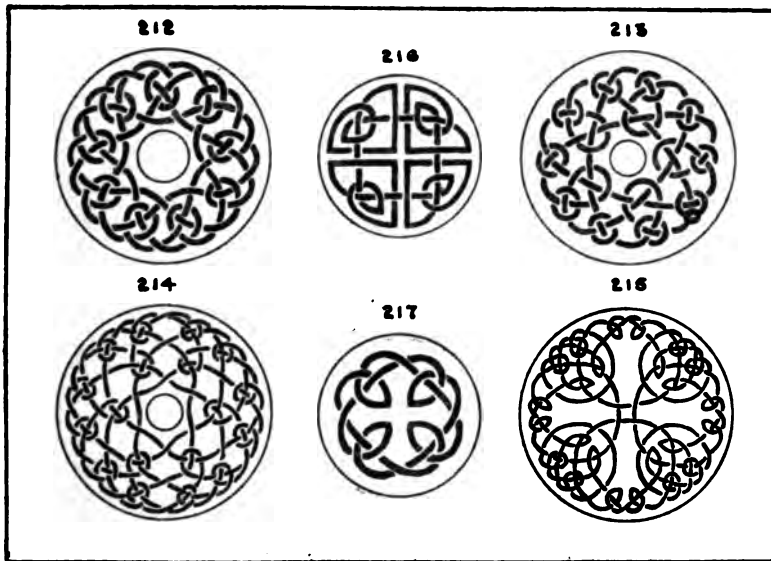


diagonals into four triangles. The elements are knots, such as those previously described, with their shape slightly altered, so as to fit into the triangle, and in some cases with loops and rings added.

Patterns formed of interlaced Rings, figs. 203 to 211.

In the following figs. are shown the various combinations that may be made out of three kinds of rings—

1. Circular ring.
2. Elliptical ring.
3. Ring looped in four places.

*Knot-work filled into circular Spaces, figs. 212 to 215.*

The elementary knots in the followings figs. are arranged in concentric circular rows.

FIGS. 212 TO 215.—Founded on loops and rings.

FIG. 216.—Founded on elementary knot C.

FIG. 217.—Founded on elementary knot D.

Knot-work filled into triangular Spaces, figs. 218 to 222.

FIG. 218.—Founded on elementary knot D.

FIG. 219.—Symmetrical three-cornered knot, known as the triquetra.

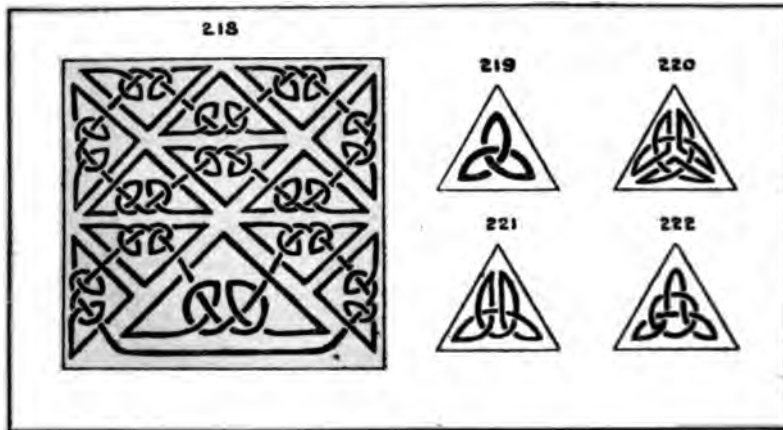


FIG. 220.—Elementary knot A repeated three times, so as to fit into an equilateral triangle.

FIGS. 221 AND 222.—Irregular interlacements fitting into an equilateral triangle.

This concludes the technical description of the knot-work on the diagrams; it only now remains to state the names of places where the different examples occur. I simply give the localities, and to save giving the authorities in each special case, I may mention that the Scotch stones are to be found illustrated in Dr Stuart's *Sculptured Stones of Scotland*, published by the Spalding Club; the Irish ones in O'Neill's *Crosses of Ireland* and Petrie's *Irish Inscriptions*; the Welsh ones in Professor Westwood's *Lapidarium Wallie*; and those of the Isle of Man in the Rev. J. G. Cumming's *Runic Remains of the Isle of Man*. For the illuminated MSS. see Professor Westwood's *Miniatures* and the publications of the Palæographical Society.

LOCALITIES WHERE THE DIFFERENT SPECIMENS OF
ORNAMENT OCCUR.

- FIG. 1.—Stanley and Mountblow House (Scotland), also eighteen examples in Wales (see Westwood's *Lapidarium Walliæ*).
- FIG. 2.—Rothesay (Scotland), Clonmacnoise (Ireland).
- FIG. 3.—Zürich Cathedral (Switzerland).
- FIG. 4.—Rothesay (Scotland), Corwen (Wales).
- FIG. 5.—Docton.
- FIG. 7.—Rossie Priory.
- FIG. 9.—Meikle (Scotland).
- FIG. 10.—Penannular brooch found in Co. Roscommon (Ireland), *Jour. Archæolog. Assoc. Ireland*, 1874-5, p. 158.
- FIG. 12.—Cross in Leeds Parish Church.
- FIG. 13.—Liberton, Rothesay, Bressay, Drainie, Inchinnan (Scotland); Aycliffe and Gainford (Durham); Norham, Warden, Hexham (Northumberland); Kirk Michael (Isle of Man); Llantwit and Llandeuaelog (Wales).
- FIG. 14.—Church of S. Maria, Cologne.
- FIG. 15.—Rothesay (Scotland), Maen Achwynfan (Wales).
- FIG. 16.—Warkworth (Northumberland).
- FIG. 17.—Govan (Scotland), Warkworth (Northumberland).
- FIG. 18.—Kirk Michael (Isle of Man); Gosforth, Dearham (Cumberland); Penmon (Anglesey); Gällstadt Church, Westgotland (Sweden).
- FIG. 19.—Kirk Michael (Isle of Man).
- FIG. 20.—(Ireland).
- FIG. 21.—Mountblow House and Stanley (Scotland), and six places in Wales.
- FIG. 22.—Benvie (Scotland).
- FIG. 23.—Book of Kells (Trin. Coll., Dublin).
- FIG. 24.—Rosemarkie (Scotland), St Oswalds and Billingham (Durham), Clonmacnoise and Kilkispeen (Ireland), Hunterston Brooch (*Proc. Soc. Ant. Scot.*, vol. vii. pl. lvii.).
- FIG. 25.—Latin Gospels (Imp. Lib., Paris).
- FIG. 26.—Tullibole (Scotland).
- FIG. 27.—Kirkholm and St Andrews (Scotland).
- FIG. 29.—Whithorn, Kirkinner (Scotland), Gospels of Durrow.
- FIG. 30.—Whithorn, St Madoes, and Brodie (Scotland).
- FIG. 31.—Whithorn, Jordan Hill, and Jedburgh (Scotland); Llanbadaon Vawr (Wales).
- FIG. 32.—Wigtown and Monreith House (Scotland).
- FIG. 86.—Zürich Cathedral (Switzerland).

- FIG. 87. Jordan Hill, Kirriemuir, Jedburgh, Scoonie, Inchbrayock (Scotland); Jarrow, Aycliffe, and Billingham (Durham); Landough (Wales).
- FIG. 88.—St Vigean, Denino, Brodie, Nigg, Abbotsford, and Glamis Manse (Scotland), Psalms of Cassiodorus, manu Bedæ.
- FIG. 89.—St Andrews and Meigle (Scotland).
- FIG. 90.—Govan (Scotland).
- FIG. 91.—St Gall MSS.
- FIG. 92.—Tynemouth (Northumberland).
- FIG. 93.—Glamis (Scotland).
- FIG. 94.—Gospels of Durrow.
- FIG. 95.—Alnmouth (Northumberland).
- FIG. 97.—Book of Durrow.
- FIG. 99.—St Andrews.
- FIG. 100.—St Andrews.
- FIG. 101.—Aberlemno and Arthurlee (Scotland), Old Scotch Bagpipes, date 1409 (*Proc. Soc. Ant. Scot.*, vol. xiv. p. 121).
- FIG. 102.—Billingham (Durham), Hunterston Brooch.
- FIG. 103.—Penannular Brooch found in Sutherlandshire (*Proc. Soc. Ant. Scot.*, vol. x. p. 587).
- FIG. 107.—S.E. Cross at Monasterboice (Ireland).
- FIG. 108.—Commentaries on the Psalms, manu Bedæ.
- FIG. 109.—Farnell and St Andrews (Scotland); Aycliffe (Durham); Lindisfarne (Northumberland).
- FIG. 112.—St Vigean and Dyce (Scotland), Gainford (Durham).
- FIG. 115.—Llanfihangel, Ystrad, and Silian (Wales).
- FIG. 116.—Alnmouth (Northumberland).
- FIG. 117.—Nigg, Meigle, Abbotsford, and Strathmartin (Scotland); Alnmouth and Lindisfarne (Northumberland); West Kirby (Cheshire); Penally (South Wales).
- FIG. 118.—Cross at Kells (Ireland).
- FIG. 119.—Book of Durrow.
- FIG. 121.—Coldingham (Scotland).
- FIG. 122.—Isle of Canna (Scotland); Norham (Northumberland); Latin Gospels (Imp. Lib., Paris).
- FIG. 123.—St Andrews and Farr (Scotland); Jarrow (Northumberland); Chester-le-Street (Durham); Eyam (Derbysh.).
- FIG. 124.—Bewcastle (Cumberland).
- FIG. 125.—Rosemarkie (Scotland), Lindisfarne (Northumberland).
- FIG. 126.—Lindisfarne.
- FIG. 127.—Bewcastle (Cumberland); Gospels of Mac Regol.

- FIG. 128.—Aberlemno (Scotland); Bewcastle (Cumberland); Gospels of St Petersburg.
- FIG. 129.—Thornhill (Scotland); S.E. Cross, Monasterboice (Ireland); Ilkley (Yorkshire).
- FIG. 130.—Dunfallandy (Scotland).
- FIG. 132.—Eilanmore and Jordan Hill (Scotland); Llandough, Llantwit, Penally, and Llandaff (Wales); Penannular Brooches found in Perthshire and Sutherlandshire (*Proc. Soc. Ant. Scot.*, vol. x. p. 587, and vol. xiv. p. 450); Ancient Scotch Bagpipe, dated 1409 (*Proc. Soc. Ant. Scot.*, vol. xiv. p. 121); Sword-hilt found in grave mound at Ultuna, Sweden (*Proc. Soc. Ant. Scot.*, vol. x. p. 591).
- FIG. 133.—Gospels of Durrow.
- FIG. 134.—MSS. of St Gall.
- FIG. 135.—St Oswalds and Billingham (Durham); Penally (South Wales); Penannular Brooch from Isle of Mull (*Proc. Soc. Ant. Scot.*, vol. xiii. p. 68); Golden Gospels (Stockholm).
- FIG. 139.—Gospels of Durrow.
- FIGS. 140 AND 141.—Cossins, St Vigeans, Kirriemuir, Monifieth, Crieff, Govan, and Meigle (Scotland); Gainford (Durham); Llandough, Llanbadarn Vawr, Margam, and Llanynnis (Wales).
- FIG. 143.—Gospels of Durrow.
- FIG. 146.—Aycliffe (Durham).
- FIG. 147.—Clonmacroise (Ireland).
- FIG. 148.—The Psalms by Cassiodorus, manu Bedæ.
- FIG. 151.—Monasterboice (Ireland).
- FIG. 152.—Gospels of Durrow.
- FIG. 154.—S.E. Cross, Monasterboice (Ireland).
- FIG. 155.—Golspie (Scotland); Psalms of Cassiodorus.
- FIG. 158.—Inchinnan (Scotland).
- FIG. 159.—Barrochan (Scotland), Norham (Durham).
- FIG. 160.—MSS. of St Gall.
- FIG. 161.—Sword-hilt found at Ultuna, Sweden (*Proc. Soc. Ant. Scot.*, vol. x. p. 591).
- FIG. 162.—S. Cross, Clonmacroise (Ireland).
- FIG. 163.—Gospels of Durrow.
- FIG. 164.—Meigle and Glamis (Scotland).
- FIG. 165.—Gospels of Durrow.
- FIG. 166.—S. Cross, Monasterboice, and S. Cross, Clonmacroise (Ireland).
- FIG. 167.—Brodie, Glamis, and Gattonside, near Melrose (Scotland).
- FIG. 168.—Gospels of Durrow.

- FIG. 169.—S.E. Cross, Monasterboice (Ireland).
 FIG. 170.—Meigle (Scotland).
 FIG. 171.—St Madoes (Scotland).
 FIG. 172.—Rossie Priory (Scotland).
 FIG. 173.—S. Cross, Clonmacnoise (Ireland).
 FIG. 174.—Monifieth and Gask (Scotland), Alnmouth and Lindisfarne (Northumberland), Monasterboice (Ireland).
 FIG. 175.—Drainie, and Sueno's Stone, Forres (Scotland); S.E. Cross, Monasterboice (Ireland).
 FIG. 176.—Nigg (Scotland).
 FIG. 177.—Tarbet (Scotland).
 FIG. 178.—Termonfechin Cross (Ireland).
 FIG. 179.—Iona (Scotland); Norham (Northumberland); S. Cross, Clonmacnoise; S.E. Cross, Monasterboice; and Tuam Cross (Ireland).
 FIG. 180.—Gospels of Durrow.
 FIG. 181.—Alnmouth (Northumberland).
 FIG. 183.—Rossie Priory (Scotland).
 FIG. 184.—Zürich Cathedral (Switzerland).
 FIG. 185.—Meigle and Govan (Scotland), Penally (South Wales).
 FIG. 186.—Drainie and Govan (Scotland).
 FIG. 187.—Burghead and Ulbster (Scotland).
 FIG. 188.—Gask (Scotland).
 FIG. 189.—Strathmartin (Scotland).
 FIG. 190.—Monifieth and Aboyne (Scotland).
 FIG. 191.—Aberlemno (Scotland).
 FIG. 192.—Rossie Priory (Scotland).
 FIG. 193.—Rosemarkie (Scotland).
 FIG. 194.—Meigle (Scotland).
 FIG. 195.—Strathmartin (Scotland).
 FIG. 196.—Rossie Priory (Scotland).
 FIG. 197.—St Oswald's and Aycliffe (Durham).
 FIG. 198.—Psalter of St Augustine.
 FIG. 199.—Ulbster (Scotland).
 FIG. 200.—Ulbster (Scotland).
 FIG. 201.—Rossie Priory (Scotland).
 FIG. 202.—Kilchonan (Scotland).
 FIG. 203.—Inchinnan, Meigle, and Govan (Scotland); Aycliffe and Billingham (Durham); Llandough, Carew, Llantwit, Golden Grove, Nevern, Margam, and Meifod (Wales).
 FIG. 204.—Govan (Scotland), Jarrow (Northumberland).

- FIG. 205.—Jarrow (Northumberland).
 FIG. 206.—Fowlis Wester (Scotland), Norham (Northumberland).
 FIG. 207.—Kilkeran (Scotland).
 FIG. 208.—Barrochan (Scotland).
 FIG. 209.—Meifod and Maen Achynfan (Wales); St Peter's Church, Northants ; Zürich Cathedral ; Chessmen from Isle of Lewis.
 FIG. 210.—Zürich Cathedral.
 FIG. 211.—Icelandic wooden mangling implement (Indus. Mus., Edinburgh).¹
 FIG. 212.—Nigg (Scotland).
 FIG. 213.—Rosemarkie (Scotland).
 FIG. 214.—Hilton of Cadboll (Scotland).
 FIG. 215.—Rossie Priory (Scotland).
 FIG. 216.—St Vigean, on two stones (Scotland), Aycliffe (Durham).
 FIG. 217.—Dupplin Castle, Kilmartin, and Ellanmore (Scotland).
 FIG. 218.—Dunfallandy (Scotland).
 FIG. 219.—Chapel of the Garioch, Dupplin Castle, Meigle, Govan, St Andrews, Oronsay (Scotland); Warkworth and Warden (Northumberland); Kirk Michael, Calf of Man, and Douglas (Isle of Man); Lantwit, Margam, Llanfrynach, Langharne, Penally, and Meifod (Wales); Clonmacloise, on six stones, and Killamenny (Ireland).
 FIG. 220.—Glendalough (Ireland).
 FIGS. 221 AND 222.—St Fillan's Crozier.



The "Lacy Fret" (Whitaker's *Hist. of Whalley, Lancashire*, p. 97).

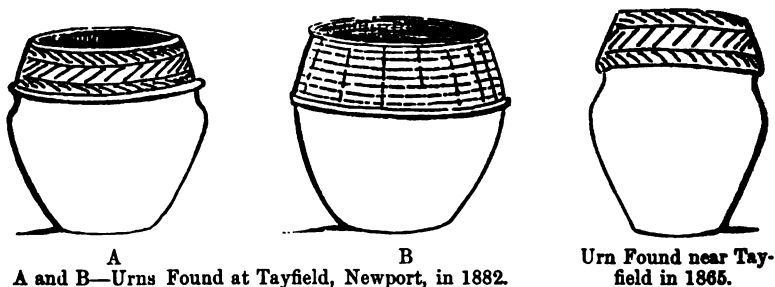
¹ This peculiar figure, formed of interlaced rings, seems to have been used as a symbol, for it occurs opposite All Saints' day upon a Staffordshire clog almanack, illustrated in Gough's *Camden*, vol. ii. p. 499.

VI.

NOTICE OF CINERARY URNS DISCOVERED AT NEWPORT, FIFE.

By A. H. MILLAR, F.S.A. SCOT.

Towards the end of August 1882, whilst some workmen were employed removing a tree on the estate of Tayfield, Newport, they came upon two cinerary urns containing partially calcined bones. The urns had been deposited side by side, without any protecting slab either above or below them; and the tree, whose removal led to their discovery, had spread its roots around them. By the accidental disposition of these roots one of the urns was perfectly protected, and was found completely embedded



A and B—Urns Found at Tayfield, Newport, in 1882.

Urn Found near Tayfield in 1865.

beneath the spreading fibres; but the others had, unfortunately, been penetrated by some of the underground branches and seriously injured. They were both removed as carefully as possible to Tayfield House with their contents. The excavation was superintended by the Rev. J. M. Brown Murdoch, Riverhead Vicarage, Sevenoaks, who was residing at Tayfield House at the time, and who supplies the following information as to the mode of operation pursued:—

The urns lay in a line almost due east and west from the silver spruce fir (*Pinus picea*) which was being removed. The urn, with least decoration, was found first as it lay nearest the centre of the tree, and a chance

blow from a workman's spade partially destroyed it, exposing the calcined bones which it contained. The other urn, which lay side by side and in close contact with it, was next discovered, but as one of the roots of the tree had crushed it some difficulty was experienced in removing it. These roots were cut, canvas was placed around the injured urn, and the fragments of pottery and calcined bones were carefully removed.

The first urn was now partly exposed, and as it lay well under the arching roots of the spruce fir which thus protected it, the excavators confidently expected to remove it in a nearly perfect condition. But the workmen found, as they proceeded, that the root-fibres upon the eastmost side of this urn had destroyed it also, and it was at length removed in fragments. Mr Murdoch states—"I fancy that the men were not quite cautious enough in the work, and that the perfect (west) side of the urn became detached from the injured side, and falling over towards the west, came to pieces." This experience may be useful to future excavators.

Through the courtesy of Mrs Berry and Mr Wm. Berry of Tayfield, I was permitted to examine the relics, and after careful inspection find that the following is their condition:—The urns are both composed of dark-coloured clay, slightly mixed with sand, and only partially fired. They are very perfectly formed, both inner and outer surfaces having been finished with care. The ornamentation, though simple, exhibits some attempt at design, and has apparently been executed with a bone pin or or other blunted instrument whilst the clay was wet. The firing to which the vessels have been subjected has only been sufficient to harden them to a slight depth below the outer surface, leaving the remainder of the urn in the condition of a dried but unfired brick.

The shapes of the urns vary considerably. The smaller one (A) is narrower at the top than at the centre, and is furnished with a flange raised about half an inch above the highest bead-moulding, as if it had been intended to be fitted with an inner lid.¹ The base has been truncated

¹ The blocks of the outline figures of the urns which illustrate this paper are contributed by the author.

so that it might rest with its aperture upwards. I have not been able to ascertain the exact diameter of this urn, but from the descriptions of the discoverers, corrected by an ideal circle drawn from the remaining fragments, I find that it has measured about 12 inches outside, with an inner radius of about 5 inches. Its depth was probably 12 inches inside.

The larger urn (B) is different from the one described both in shape and ornamentation. It has been narrower at the mouth than in the body of the vessel, and the lip, instead of having a flange to receive a lid, has been bevelled to the outer surface, probably for that purpose. The decoration is much simpler than that of the other, though evidently executed in the same fashion, and with similar tools. The fragments are not sufficiently large to admit of its exact dimensions being discovered, but it has likely been about 14 inches in diameter at the lip, extending to 16 inches (outside measurement) at the centre of the vessel, and contracting to perhaps 7 inches across the flattened bottom. A very neat bead had been formed near the centre of each urn, serving to divide the decorated portion from the plain base.

The bones which these urns have contained are partially calcined, but not pulverised. Sometimes the white appearance of bones, long buried but preserved from actual contact with the soil, deceives the casual observer, who expects to find traces of calcination; but a careful examination of these relics will show distinctly the action of fire upon them. Several of the fragments showed signs of having been split with some instrument *after the outer surface had been calcined*, probably to admit of their being placed within the cavity of the urn. The bones are too imperfect to form a correct index to the age and condition of the skeletons to which they belonged, and only very vague conjectures may be founded upon them. From the appearance presented by a portion of one of the cranial bones (*os parietale*), in which the processes of the coronal suture are very wide and laminated, whilst the plate itself is thin, it is likely that the smaller urn had contained the skeleton of a child; and the presence of two portions of knee-joint bones and well-developed (*metatarsal*) toe-bones leads to the notion that more than one

skeleton was enclosed in this urn. The bones in the other receptacle have been too much destroyed to admit of accurate identification, though several of the lumbar vertebræ of an adult were visible amongst the débris.

Though the formation of the urns seems to indicate that they were intended to have covering lids, no traces of the latter were found. The vessels have apparently been reversed, with their contents, upon the bare ground, and the decayed state of those parts which have been nearest the soil is thus accounted for. The places where the tree-roots had broken through the pottery would be similarly affected; and the calcined bones thus brought into immediate contact with the earth present a different appearance from those preserved from its influence. Though the urns were found at a depth of only 18 inches from the present surface of the soil, it is not improbable that at some time a knoll had risen over their site which had been partially cleared away. The tree which grew over them is certainly not more than eighty years of age, and the flatness of the plateau on which it grew rather favours the notion that the ground has been artificially levelled.

There have been remains similarly situated found upon the estate of Tayfield before this time. About the year 1835, whilst the father of the late proprietor was bringing a portion of ground on the farm of Northfield under cultivation, he came upon traces of a "circular work," which was supposed at that period to be a Roman camp. Further investigation disclosed that this erection was composed of earth, while a cairn in the centre enclosed a stone coffin of considerable size, containing a great quantity of bones. One of the slabs which formed this coffin was about 6 feet long, 4 feet broad, and 6 inches thick, and was made of roughly-polished yellow sandstone. In 1855 some workmen were employed boling trees near Westwood—at a short distance from the site of the urns now discovered; when they came upon a sarcophagus or stone coffin, composed of rude, undressed flags of whinstone, which was also full of bones. Neither of these coffins contained urns such as are usually found in such sarcophagi, but their absence was counterbalanced by a

discovery which took place in the neighbourhood a few years afterwards.

In October 1865, while some workmen were employed trenching at Westwood, near Tayfield, they came upon several cinerary urns disposed in a manner not hitherto noted by any Scottish antiquary. They were nine in number, and placed in a circle around a central urn, and at a radius of 7 feet. The depth at which they were buried varied from 8 to 20 inches, and though they had no slabs placed under them—as is frequently the case—some preparation had been made to preserve their contents from decay by the depositing of charcoal and ashes beneath each inverted urn. The vessels do not seem to have been at all equal in size to the two now discovered, as the largest of them was only $14\frac{1}{2}$ inches high, $9\frac{3}{4}$ inches across the mouth, and $3\frac{3}{4}$ inches at the base; whilst the smallest merely measured 5 inches in height, $4\frac{1}{2}$ inches across the mouth, and 3 inches at the base. The ornamentation of these urns was almost identical with that upon the more elaborate of the Tayfield urns. A notice of the Westwood urns from the pen of the late Mr Jervise, appeared in the Society's *Proceedings* for 1865, and they are now deposited in the Museum.

As Mr Murdoch was aware of the circumstances under which the urns were found at Westwood, he examined the ground carefully. The urns had been deposited closely together at the same time, without any measures being taken to exclude the earth from immediate contact with their contents. These interesting relics are now in the possession of Mrs Berry of Tayfield.

MONDAY, 12th March 1883.

ARTHUR MITCHELL, M.D., LL.D., Vice-President,
in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected
Fellows :—

JAMES CURRIE BAXTER, S.S.C., 45 Heriot Row.

SAMUEL COWAN, Publisher, Perth.

W. E. LOCKHART, R.S.A., 9 Chamberlain Road.

GEORGE MILLER, C.A., Acre Valley, Torrance of Campsie.

The following Donations to the Museum and Library were laid on the
table, and thanks voted to the Donors :—

(1.) By Mrs RAMSAY, Kildalton, Islay.

Cast in Portland Cement of the Cross at Kildalton, Islay, 9 feet in height. [It is hoped that engravings with detailed descriptions of this fine cross may be given in the next volume of the *Proceedings*.]

Cast in Portland Cement of an unshaped Slab, 26 inches in length, with an incised Latin cross on one side, found under the pedestal of the Kildalton Cross.

Cast in Portland Cement of an erect Slab, unshaped, and sculptured on one side only, the other side and the edges being left in their natural condition. On the sculptured side is a Celtic cross in relief, very rudely executed, with a circle connecting the arms with the shaft and summit, the sun and moon over the arms, and the spaces underneath filled with rudely executed interlacements, with scroll-like terminations. The slab is interesting, as being the second known in Scotland which has the conventional representation of the sun and moon over the arms of the cross. The other specimen, which was found at Craignarget, Gillespie, Glenluce, is also in the Museum, and is figured in the *Proceedings*, vol. iii. (New Series), p. 251. This one is from Doid Mhairi, near Port-Allen, Islay.



Fig. 1. Recumbent Slab in Kildalton Burying-Ground (6 feet 2 inches in length).

Cast in Portland Cement of the upper portion of a shaped Slab with rounded head, bearing an equal-armed cross within a circle. The slab is broken in the lower part, and now only measures 2 feet 3 inches in length. It was originally found at Kilbride, parish of Kildalton, Islay.

Cast in Portland Cement of a recumbent Slab (fig. 1) in the Kildalton burying-ground, 6 feet 2 inches in length, 20 inches wide at the head, and 16 inches at the bottom. It bears in the centre a sword with guard reversed, and scroll-work of the usual foliaceous kind proceeding from the tail of a nondescript animal. Below the sword are a pair of shears; the spaces on either side of the hilt are filled up with animal figures, and a pattern of interlaced work fills the space between the sword and the top of the slab.

Casts in Plaster of two Inscriptions on recumbent Slabs from the island of Texa, Islay.

Mrs Ramsay has kindly sent the following notes regarding the monuments from which these casts were taken:—

THE KILDALTON CROSS—(*Cast No. 1*).—The old parish church of Kildalton is situated in the graveyard on the farm of Ardmore, about nine miles north-east of Port Ellen, and the ancient cross stands a few yards north of the church, within the wall which surrounds the burying-ground.

Previous to August 1882, when the cast

of the cross was made, it had long stood in a roughly-dressed stone which had no sufficient foundation, and the cross had consequently fallen to a slanting position. To allow a proper foundation to be made for the cross, the stone in which it had stood was lifted, and immediately under the south-west corner of it the unshaped slab (Cast No. 2) was found, lying face downwards. (See fig. 2.)

A number of water-worn stones, such as are to be got in the bays near, were also found, and amongst them a rough stone, nearly round, and about $6\frac{1}{2}$ inches in diameter, one side of which had the appearance of having been worn smooth artificially. Below these water-worn stones, human remains, apparently of more than one body, were come upon.

Dr Mitchell was present when the basement was removed and the slab, &c., discovered.

The cross of Kildalton now stands erect on the spot it formerly occupied, with the same stone as basement, though part of it is hidden by the new steps and built into the foundation, in the hope of making it more secure.

Cast No. 2.—The cast of the unshaped slab mentioned above, bearing the incised Latin cross, found in the foundation of Kildalton cross, August 1882 (fig. 2). The stone is 26 inches in length, and sculptured on one side only.

Cast No. 3.—The original of this cast, bearing a Celtic cross (fig. 3), is a rude irregular slab. Its length from base to summit is 2 feet 9 inches; width at summit, 14 inches; width at base, 10 inches;

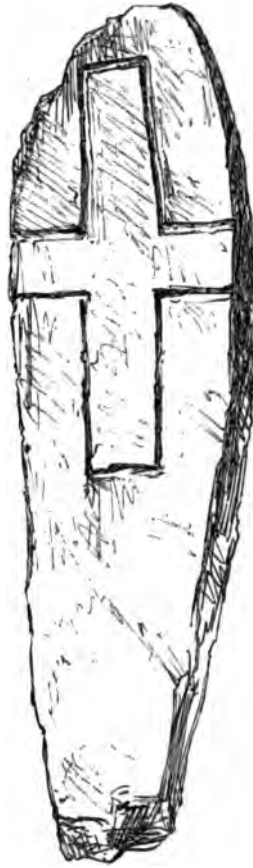


Fig. 2. Stone with Incised Cross, found under the Kildalton Cross (26 inches in length).

average thickness, $7\frac{1}{2}$ inches.

On the 30th January 1883, Donald M'Nab,

who has been in Mr Ramsay's employment for nearly fifty years, took me to the spot where he found the slab about forty-five years before, and which was called "Doid Mhairi."

It is situated in a large park about 300 yards west of Port Ellen distillery, and north of the limekiln which is on the side of the public road leading to Kintraw. I believe in a direct line it is nearly midway between the ruin and burying-ground of Kil-naughton and Tigheargaman, where another cross once stood, the site of which is still to be seen.

Donald M'Nab describes "Doid Mhairi" (previous to the date of finding the slab) as an uncultivated spot in the field about the size of a small potato plot or garden, on which a considerable quantity of stones lay, and there was some appearance of an enclosure or building having



Fig. 3. Erect Slab with Cross, in relief, from "Doid Mhairi" (2 feet 9 inches in length).

existed. The other parts of the field had been cultivated, but "Doid Mhairi" had not, owing to a belief, as Donald M'Nab stated, that it might once have been a place of burial, from its resemblance to other places of burial in the district. It was, however, resolved to clear the spot, and while Donald M'Nab was removing the stones he found amongst them the slab now under notice. It was set up in the old distillery garden, where it remained till a few years ago, when the garden was covered with buildings, and the cross brought to Kildalton House, where it now is. "Doid Mhairi" signifies in English "Mary's Croft," meaning a small piece of ground such as a potato plot or small garden. No other object of interest, nor bones of any kind, were found at "Doid Mhairi," or in any other part of the field when it was trenched or ploughed.

KILBRIDE CROSS—(*Cast No. 4*).—The slab, of which this is a cast, measures 27 inches long by $9\frac{1}{2}$ broad, and is 3 inches thick. It is rounded at the top, and on one side bears a Latin cross within a circle, in low relief. This cross was known as *Crois-an-t-sagairt*, the Priest's Cross.

A son of the Rev. A. M'Tavish, late minister of the parish, carried the slab from Kilbride to the old manse garden, where it remained till August 1882, when it was taken to Kildalton House.

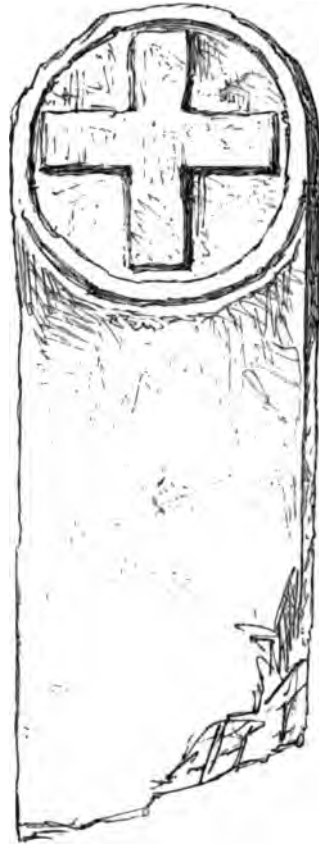


Fig. 4. Slab with Cross from Kilbride, Islay (27 inches high).

The farm of Kilbride is situated about a mile and a half north-east of Port Ellen. On this farm is the ruin of the church of Cille Bhrìde. The burying-ground surrounding the old church has long been disused, but the present tenant of the farm says he has known of children being buried there. He pointed out the site of the cross, about 11 feet east of the ruin, where part of the foundation is still to be seen. There is a well, about 13 feet south-east of the ruin, which is called Tobar-an-t-sagairt, the Priest's Well.

(Extract of a Letter from Rev. John M'Tavish, dated Inverness, 2nd February 1883).

"You may inform Mrs Ramsay that I remember having fallen in (when once on my way home from Kilbride) with, I suppose, the very stone which she inquires about, though my impression is that it was not quite so long as she says. I think it was lying on the ground in a small, neglected, and long-disused graveyard; at all events I thought it a pity, plain as it was, that it should lie there uncared for, so I shouldered it, and conveyed it, I cannot say whether with or without any assistance, to the old manse. It is so long since this happened—I suppose not less, possibly more, than forty-five years ago—that the only wonder to me in connection with it is that so much has been remembered about it, and that my exploit should now come to light and be a matter of history!"

(Extract of a Letter from Miss M'Tavish).

"If my brother's memory serves him right, he can tell you that he carried the cross you ask about on his shoulder from Kilbride, and set it up on one of the pillars of a small gateway that led to the road to the office houses. I fear no one of us is in a position to throw any light on the antiquity of the stone, but the rude carving may be a guide to those who are versed in such matters. There may be other remains where it was found, as of course the name of the farm tells that it was the resting-place of one of the saints of old.

"At the time John brought the cross to the manse, there were threatened disturbances in Ireland, and Donald Carmichael (mason), said, 'If the Papists come over, they will not harm the minister, as the cross is set up here.'"

In the hurriedly written description of the slab which was sent to Mr M'Tavish, I gave its length as "about 3 feet." Its length, however, is only 2 feet 3 inches. Mr M'Tavish therefore correctly remarks that, so far as he could remember, the stone was not quite so long as I said. I sent a rough sketch of the slab to Mr M'Tavish to make sure that we referred to the same stone.

Cast No. 5 is that of the sculptured sepulchral slab, showing a sword, shears, &c., in the Kildalton burying-ground, which has been already noticed as fig. 1 on page 278.

(2.) By the Right Hon. the EARL OF STAIR, F.S.A. Scot.

Bronze Javelin Head, 3 inches in length, found in Balgown Moss, Kirkcolum, Wigtownshire.

(3.) By K. H. MACDONALD, M.D., Marathon House, Cupar, through
J. M. DICK PEDDIE, F.S.A. Scot.

Enamelled Crucifix of Bronze, found in the Churchyard of Ceres, Fife.
(See the previous paper by Mr Peddie.)

(4.) By JOHN ALEXANDER SMITH, M.D., *Secretary*.

Eight rude Stone Implements and one Stone Pounder, from Kennaby, Fair Isle.

Two oblong Stone Pounders, found at Gillie, Fair Isle, Shetland.

Oval Boulder of Sandstone, perforated, from Setter, Fair Isle, Shetland.

Two "Collies" or Shetland Crusies, one of iron, another of copper.
(See the subsequent paper by Dr Smith.)

(5.) By JOHN BRUCE, Jun., of Sumburgh, Shetland.

One Sinker, two broken perforated Stones, and portion of the side of a large Vessel of Steatite, from Kennaby, Fair Isle.

Portion of a Stone Cup, found at Gillie, Fair Isle.

Oblong Stone Vessel, found in Fair Isle.

Oblong water-worn Boulder, found at Boddam, Dunrossness, Shetland.

Two carved Discs of stone, found in a Broch on Scatness, Shetland.

Three Whorls of steatite, from the remains of buildings in Fair Isle, Shetland.

Two Corn Rubbers, found at Kennaby, Fair Isle.

Two "Collies" or Shetland Crusies of iron, one from Fair Isle.

Hand-loom for Garters, in use in Fair Isle.

Two large Stone Sinkers, as in use at Sandwick, Shetland.

Stone Window Frame, from Boddam, Dunrossness, Shetland. (See the subsequent paper by Dr Smith.)

(6.) By GEORGE BRUCE, Sand Lodge, Sandwick.

Two terminal Stone Sinkers, and one of the Middle Sinkers of a "long line," as presently in use, from Sandwick, Shetland. (See the subsequent paper by Dr Smith.)

(7.) By A. CUNNINGHAM HAY, Lerwick.

Iron Padlock, and Wooden Door-lock, from Norway.

(8.) By G. R. GRANT, Schoolmaster, Boddam, Shetland.

Penny of Edward II., Penny of Henry II., and Dutch Copper Coin.

(9.) By SYMINGTON GRIEVE, F.S.A. Scot., the Author.

Notice of the Discovery of Remains of the Great Auk in the Island of Oronsay. Reprint from the Linnean Society's *Journal*.

(10.) By the SENATUS OF THE UNIVERSITY.

Edinburgh University Calendar 1878-79 and 1879-80.

(11.) By Col. YULE, C.B., Hon. Mem. S.A. Scot.

Notes on the oldest Records of the Sea Route to China from Western Asia. Reprint from *Proceedings* of the Royal Geographical Society.

(12.) By the DEPUTY CLERK-REGISTER OF SCOTLAND.

Records of the Privy Council of Scotland. Vol. V.

(13.) By GEORGE HAY, F.S.A. Scot., the Editor.

Round about the Round O, with its Poets. Edited, with Notes by George Hay, F.S.A. Scot. The Drawings by John Adam, Edinburgh. 4to. Arbroath: Thomas Buncle. 1883.

(14.) By WILLIAM MACKAY, F.S.A. Scot., Inverness.

Transactions of the Gaelic Society of Inverness. Vols. II-IX. inclusive.

There were also exhibited :-

(1.) By CHARLES ELPHINSTONE DALRYMPLE.

A Portrait on Panel, formerly in Stirling Castle.
(See the subsequent communication by Mr Dalrymple.)

(2.) By J. SANDS.

Bronze Sword, 22 inches in length, slightly broken at the hilt and point, having two rivet-holes in the wings and two in the handle-plate, with a slot between them.

Bronze Pin (fig. 5), $2\frac{1}{2}$ inches in length, with swivel-head, the ring and the pin-head decorated with prickly ornamentation. The diagrams *a* and *b* show the ornament of the head and the reverse side of the pin.

Bronze Needle, $1\frac{1}{2}$ inches in length, with oval eye.
All found in the Island of Tiree.

The following Communications were read:—

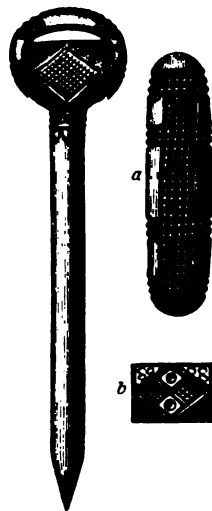


Fig. 5. Bronze Pin, found in Tiree ($2\frac{1}{2}$ inches in length).

Anxious to ascertain whether any other inscriptions existed on the pavement of the chapel to which I refer, as containing General Ludlow's monument, I prevailed on the workmen to let me make an opening in a raised wooden platform which covered the floor of this chapel, and my research was rewarded by discovering, in the pavement beneath, two other grave stones commemorating two more of the regicides, the inscriptions on which could not have seen daylight for the last century or more, and copies of which I also now annex.

The name of Nicholas Love, on the first of these inscriptions, occurs in the original commission for the trial of the unfortunate monarch, and though it is not found amongst the signatures to the warrant for the king's execution, he was present as a judge on several days of the trial, and also on the day on which the condemnation was determined.

The name and seal of William Cawley, on the other hand, are found affixed to the well-known fatal warrant, where he seals with the arms which we find here placed on his tomb.

To the discovery of this last inscription an additional interest applies, as in a number of *Truth* some months ago (June 8), a statement appeared of the supposed discovery of Cawley's remains in the chapel of an almshouse founded by him at his native place, Chichester, to which city, it is added, there has long been a tradition his body had been privately conveyed after his death. If this be the case, he would appear to have been first laid by the side of his fellows in crime at Vevay,—a crime which, it may be added, none of these inscriptions seemed to have recognised as such, at least in their words.

Owing to the débris which covered the two last inscriptions, and made the work of deciphering far from easy, probably some errors or omissions may occur in my copies, for which I would apologise: perhaps they may help to throw some light on a dark by-way of history, which must always be of interest to every historical student, from whatever standpoint of view he makes his research.

The following are copies of the inscriptions on the several monuments :—

I.

(*Inscription on the Monument of Edmund Ludlow.*)

Arms—A Lion Rampant.

Siste gradum et respice.

Hic jacet Edmond Ludlow, Anglus natione, Provinciæ Wiltoniensis, filius Henrici Equestris Ordinis, senatorisque Parlamenti, cujus quoque fuit ipse Membrum. Patrum stemmate clarus et nobilis, virtute propriâ nobilior, religione protestans et insigni pietate coruscus, ætatis anno 23 tribunus militum, paulo-post Exercitus Prætor primarius.

Tunc Hybernorum Domitor. In pugna intrepidus et vitæ prodigus, in victoria clemens et mansuetus, Patriæ libertatis Defensor, et potestatis arbitrarie oppugnator acerrimus. Cujus causa ab eadem patria 32 annis extorris, meliorique fortuna dignus, apud Helvetios se recepit, ibique ætatis anno 73 moriens omnibus sui desiderium relinquens sedes æternas lætus advolavit.

Hocce Monumentum in perpetuam veræ et sinceræ erga maritum defunctum amicitie memoriam dicat et vovet Domina Elisabeth de Thomas ejus strenua et lætissima tam in infortuniis quam in matrimonio consors dilectissima, quæ animi magnitudine, et vi amoris conjugalis mota, eum in exilium ad obitum usque constanter secuta est.

Anno Domini 1693.

II.

(*Inscription on the Monument of John Phelps.*)

Arms—A Lion Rampant, Gorged with a Plain Collar, and Chained.

In Memoriam

Of Him who being with Andrew Broughton joint clerk of the Court which tried and condemned Charles the First of England, had such zeal to accept the full responsibility of his act, that he signed each record with his full name

John Phelps.

He came to Vevey, and died like the associates whose memorials are about us, an exile in the cause of human freedom.

This slab is placed at the request of William Walter Phelps of New Jersey, and Charles A. Phelps of Massachusetts, descendants from across the seas.

III.

(*Inscription on the Monument of Andrew Broughton.*)

Depositorium

Andree Broughton Armigeri Anglicani Maydstonensis In Comitatu Cantij Ubi bis Prætor urbanus Dignatus que etiam fuit sententiam Regis Regum profare

quam ob causam expulsus patriâ suâ Peregrinatione ejus finitâ solo senectutis morbo afflictus requiescens a laboribus suis in Domino obdormivit 23^o Die Feb. Ano Domini 1687.

Ætatis suæ 84.

IV.

(Inscription on the Monument of Nicolas Love.)

D. O. M.

Hic jacet corpus Nicolai Love Armigeri Anglicani de Wintoniane Comitatu Southamptoniæ qui post discrimina rerum et pugnam pro patria tandem in Domino requiescit a laboribus suis spe resurgendi gloriose in adventum Dni Nostri Jesu Christi sanctis suis 5^{to} die Nov. An. Dom. 1682.

Ætatis suæ 74.

V.

(Inscription on the Monument of William Cawley.)

Hic jacet tabernaculum terrestre

Gulielmi Cawley

Armigeri Anglicani nup. de Cicestriæ comitatu.

Susseciæ

qui postquam ætate

suâ Inservivit

Dei concilio

obdormivit.

Arms.—On a large shield, three parallel shields: the centre, a chevron ermine, between three swans' necks erased at the neck. The dexter shield—party per pale—*blank*, impaling—three stag's heads. The sinister shield—party per pale—*blank*, impaling, two bendlets with a dexter canton. The whole surmounted by a crest—on a wreath, a Demi-griffin, holding a cross.

I.

(Inscription on the Monument of Edmund Ludlow.)

Arms—A Lion Rampant.

Sicte cralum et respice.

Hic jacet Edmund Ludlow, Anglus natione, Provincia Wiltoniensis, filius Henrici Equestris Ordinis, senatorisque Parliamenti, cujus quoque fuit ipse Membrum. Patrum stemmate clarus et nobilis, virtute propria nobilior, religione protestans et insigni pietate coruscus, aetatis anno 23 tribunus militum, paulo post Exercitus Praetor primarius.

Tunc Hybernorum Domitor. In pugna intrepidus et vitae prodigus, in victoria clemens et mansuetus, Patria libertatis Defensor, et potestatis arbitrariae oppugnator acerrimus. Cujus causa ab eadem patria 32 annis extorris, meliorique fortuna dignus, apud Helvetios se recepit, ibique aetatis anno 73 moriens omnibus sui desiderium relinquens sedes aeternas laetus advolavit.

Hocce Monumentum in perpetuam vere et sincere erga maritum defunctum amicitiae memoriam dicat et vovet Domina Elisabeth de Thomas ejus strenua et maestissima tam in infortuniis quam in matrimonio consors dilectissima, quae animi magnitudine, et vi amoris conjugalisi mota, eum in exilium ad obitum usque constanter secuta est.

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He came to Vevey, and died like the associates whose memorials are about us—
an exile in the cause of human freedom.

This slab is placed at the
and Charles A. Phelps at

of William Walter Phelps of New Jersey
, descendants from the son.

scarlet jerkin without sleeves, laced with gold, under which are seen gorget and corselet of steel, a long slit in the right side of the jerkin allowing the steel support for the lance to project through it. A buff belt, with gold buckles, round the waist, supports a gold-mounted sword, the left hand grasping it below the hilt. In the right hand is the fragment of a spear, bearing the spear-head. Round the right arm is a scarf, with long ends hanging down, of a dark-grey tinged with violet, edged with silver. The breeches seem to be lilac. No date or arms are on the picture.]

III.

NOTES ON SOME STONE IMPLEMENTS, &c., FROM SHETLAND, NOW PRESENTED TO THE MUSEUM. BY JOHN ALEXANDER SMITH, M.D., SEC. S.A. SCOT.

In the beginning of August 1882, I set out on a rather lengthened visit to Orkney and Shetland. In these islands, as is well known, there is much to interest the student of archaeology.

In the Shetland Islands especially, besides the numerous remains of prehistoric times, you have in the rural homesteads and agriculture of the people, many things still remaining to remind you of what was probably the state of a great part of old Scotland in the olden time. The hamlets scattered over the more fertile and cultivated lands, generally along the shores of many of the pretty bays, the wicks and goes of the natives, the small single story thatched farmhouse, built of small stones and clay, and its adjoining group of attached or detached offices of much the same rude character; its byres and barn with its circular kiln, the quern and its table in some of the houses, and doors opposite to one another between which to winnow the grain. The different houses have their roofs covered with turf, or both turf and thatch, the thatch being carefully protected from being blown away by straw ropes, or simmons, as they are called, crossing one another over the whole roof, the ends of the ropes being tied round good-sized smooth uncut stones, which rest on the projecting

part of the house walls round the caves. In other villages, where some little stream runs rapidly down to the sea, there is a series it may be of Norse mills, at no great distance from one another—the Norse mill being simply a small thatched building, devoted to a quern with its hopper and small self-supplying feed-box, suspended above it, and the quern turned by a small wooden wheel in the narrow mill race below, over which the mill is built; in some instances there is a double mill race through the one building, with a quern at each end of it—two mills, as it were, set end to end! Then as to land under tillage, it lies in running patches here and there among the grass pasture land on which the hamlet is built—some of the cattle and ponies being frequently seen tethered here and there over its surface, between the patches of grain. Then surrounding the hamlet and its tillage and home pasture ground, you have a dry stone dyke, enclosing the whole hamlet or series of hamlets, running it may be in a lengthened curve, to enclose the whole from one part of the sea-shore where their fishing boats are drawn up, and sweeping round to turn down to it again at the other boundary of the little township. The public road now cuts through this wall at one point or another, and has gates to open and shut as one passes through the boundary outside and beyond the boundary-wall. The moorland, the common or hill and high ground, with its cattle and sheep, ponies and geese, grazing in common at their sweet will, among the peat hags and mounds of cut peats which are to be seen in every direction. The same system doubtless of infield and outfield which prevailed at one time over the most of Scotland. On the bold headlands and rocky cliffs above the sea you have the remains of various Brochs, with the remains of outbuildings and ramparts more or less perfect, and in the valleys and moorlands you have other traces of prehistoric life and custom.

“*Planty Crubs or Cruives*.”—A series of small oblong enclosures, some 10 or 12 feet long by 4 or 5 feet broad, with loose dry stone walls surrounding them, and showing no means of entrance, attracted my attention. They were to be seen of all ages, ruinous and disused and quite new, and in every direction over the unenclosed ground; and on inquiring what they

were, I learned they were "planty crubs" or "planty cruives," sheltered seed-beds on the virgin soil of the common, in which their cabbage plants were raised, and from which the plants were transplanted in due course to their cottage gardens, it being a privilege of the tenant to put whatever he thought best on the virgin soil of the common.

The Stone Implements, &c., from Shetland may be divided into the ancient or prehistoric found on these old sites, and the modern ones still more or less in use in different parts of the country.

Among the various stone implements and objects now exhibited and presented to the Museum—for most of which we are indebted to the courtesy and kindness of John Bruce, Esq., jun., of Sumburgh—we have objects belonging to both of these classes.

Rude Stone Implements.—Mr John Bruce is the proprietor of Fair Isle, and as various improvements have been going on for some time on the island, building better villages, stone and lime and with slated roofs, and enclosing small patches of ground as gardens, &c., many of the stones for which were got out of the nearest mound—I asked Mr Bruce, should anything showing man's handy-work be noticed, it should be laid aside for our examination. On reaching Sumburgh, I found that Mr Bruce had got sent from Fair Isle some things of interest of this class, and I learned that a low mound of considerable size at Kennaby had been dug into and various stone implements got. The most interesting of these were the rude stone implements, somewhat varying in shape but still reminding us somewhat of very rude stone celts. They were generally, however, more of a flattened and cylindrical shape, tapering less towards their extremities. We are now familiar with this class of stone implements from the numbers in our Museum, brought to us and described by Dr A. Mitchell, as found, generally in considerable numbers together, on the mainland of Shetland. This then is a new locality, as here we have these similar implements found in an ancient mound at Fair Isle, and I have since learned a number of them have more recently been discovered also in Orkney. There are seven of these stone implements, varying somewhat in character and size.

Stone Weight or Plummot.—In this mound at Kennaby a small stone cist was also discovered; it measured $2\frac{1}{2}$ feet by $3\frac{1}{2}$ feet, and lay S.E. and N.W. A carefully tapered and smoothed stone, with crossing grooves cut on it and pierced with a longitudinal hole near to its tapering top, perhaps a weight of some kind or plummet, was also discovered.

Stone Vessels.—A portion of the side of a large vessel of steatite was found, and Mr Bruce also had an oblong stone vessel from Fair Isle. A portion of a stone cup found at Gillie, Fair Isle, was also stated by Mr Lawrence to have been found in a cist, with a stone standing upright at each end, and rough slabs at each side about 3 or 4 feet long by about $1\frac{1}{2}$ feet wide. There was also in the same cist a large urn of soapstone, which was broken, but a portion of which was sent by Mr Bruce and has just been referred to. Outside the cist were two pounding stones with abraded extremities. The mound had the appearance of a primitive dwelling or Pict's house, as there were the remains of circular walls, but no appearance of any burnt stones. A portion of another stone cup was found in another mound cut through in the formation of a road near the north harbour of Fair Isle. Another portion, apparently of this same cup, was found some time ago at the same place, and was given to Sheriff Thoms when he visited Fair Isle a year ago. He presented it at the time to our Museum, and the side pieces are now reunited. Unfortunately there is still another small portion wanting to complete the stone cup.

Whorls of Steatite.—Mr Bruce also sends three whorls of steatite, found in the ruins of old houses at Fair Isle, where they have long been out of use. The steatite of which they are formed seems like that of Shetland mainland, and not like the Fair Isle steatite, of which Mr Bruce sends us a specimen.

Primitive Hand-Loom.—A simple and ingenious hand-loom for weaving garters. An old style of primitive loom is still in use at Fair Isle. One is included in the donation, and I understand only another is now left in the Island, although, of course, when wood or wreck-wood can be got, it is not difficult to make another. The garters are not made for sale outside the island, but are used by the people themselves. They display, however, the peculiar Fair Isle style and variety of colouring and patterns,

and a little examination will show how simply the varied patterns are obtained, the different coloured threads of the wrap being lifted at different places by the loops of thread attached to them, as the crossing of the small stick or shuttle filled with white thread requires to form the patterns of the woof.

"Collies" or Iron Cruises.—They are formed of two iron oblong cups, running out in front into a pointed extremity, where the wick is projected and lighted, the one cup being hooked over the other, and the lower one in this way catching any drops of oil that might fall from the upper cup. The iron handle rises generally from the lower cup or shell, and to it is attached a movable iron plate, generally terminating in a double extremity or hook, by which the lamp may be hung on a nail or other projecting point; and a flattened and pointed extremity, by which the lamp may be fastened to a rough stone wall by being pushed between the interstices of the stones and so made fast.

The iron cruises, or "Collies," as they are styled in Shetland, are now rapidly becoming things of the past, it being very rare to see any of them in use. Where still used, they are generally taken to the Norse mill or to the outhouses, the simpler classes of paraffin lamps having almost completely occupied their place, so they are now almost a thing of the past. Mr Bruce sends two "Collies"; one was formerly in use at old Sumburgh House, the other was still in use at Fair Isle. I was fortunate enough to see one prepared for use, with wick and oil in the upper cup, at Burriland in Sandwick, Shetland, which I purchased and got away with me when on a visit to the adjoining interesting Broch.

Another was sent from a grateful patient from Sandwick point, through Dr Stewart of Dunrossness. It, however, was of copper, supplied by some vessel wrecked on the coast, as I believe it was stated to have been originally brought from Fair Isle.

Stone Window Frame.—Mr Bruce also sends at my request the stone frame of a window, now also becoming somewhat of a rarity. I saw it lying on the top of the wall of a ruined homestead, not far from Boddam, on the hillside above. The house, a but and a ben, had no windows

made in the walls, and you entered through a roofless byre, also without windows, to get to the door of it. This kind of window is laid resting on the top of the wall, sloping up into the bottom of the thatched roof—a much more simple arrangement than leaving window spaces in the unskilled building of the rough stone and clay walls of which the houses were built, of course by the occupiers themselves. Most of the cottages now have small windows in the wall, and often the older stone window frame is still used at the eave, like a skylight, to give additional light to the fireside, or wherever it is wanted.

Of course the opening cut in the pavement-like stone is filled up with a small pane of glass.

Circular Carved Discs of Stone.—Mr Bruce sends two circular discs of stone (figs. 1 and 2), with curious patterns carved on their surface. These measure $2\frac{3}{4}$ inches in diameter. They were stated to have been found in



Fig. 1. Carved Disc of Sandstone—Obverse and Reverse ($2\frac{3}{4}$ inches diameter).

the ruins of what is considered the confused stone remains of a Broch, with various grassy ramparts still surrounding it, on a headland overlooking the sea on the rocky point of Scatness, across the bay, to the west of Sumburgh Head.

It is difficult to say what these roundels could have been used for; they perhaps suggest a resemblance to tablemen more than to anything else.

Stone Sinkers still in use.—For comparison with the numbers of large rough stones, more or less hand-worked, found in Brochs, &c., Mr Bruce, at my request, sent to us several stone sinkers still used by fishermen at their long lines; some of these have perforations towards their narrower extremity, through which a loop of rope is passed by which it is made fast to the stone to prevent friction, and by which it may be fastened to the lines. The specialty here is, that the hole is so pierced through the stone, that the rope may not rub on the sea bottom. They show the modern style of making holes through stones, for comparison with the older pierced stones.



Fig. 2. Disc of Sandstone—Obverse.

Mr Bruce's brother, Mr George Bruce, Sandlodge, in Sandwick parish, where extensive fishing is carried on, was also good enough to get for me specimens of stone sinkers of the more usual class. These, however, have grooves cut round them, by which the rope may be fixed to them, and its loop fastened to the line. In these cases the groove and the line is not taken across the bottom of the stone, where it might be rubbed through on a rough sea bottom; the whole rope is also of the slightest character, so that should the sinker get jammed among rocks at the deep sea bottom, by forcible pulling at the line, the rope of the sinker would give way, and the sinker only be lost, and the long line come up all safe. There are heavy sinkers for the ends of the long lines, but at intervals between the hook lines hanging from the main fishing line there are other sinkers fixed in a loop of the hook line; hence they are called "bighters," being fastened in a loop or bight of the line. These are generally much smaller stones, with a single groove cut round their centre, to which the rope is fixed which attaches them to these drop lines.

A large sinker is put at one end of the line (called a cappie or steckie), then at every 4 fathoms a "toomie" line is fastened, $\frac{3}{4}$ of a fathom, with a hook at its extremity; at every 120 fathoms there is a line with the small sinker, the bighter instead of a hook, tied to the line with a running noose or bight. The boats in the south of Shetland carry three sinkers each like those sent, one at each end and one in the middle of the line. In the north of Shetland longer lines are used and more sinkers are required. Here a boat carries 6 pachirs for a line:—

40 fathoms 1 bought.

9 boughts 1 pachir.

6 pachirs 1 line = 4320 yards.

This will give somewhat of an idea of the extent of the lines of the Shetland fishermen. The sinkers with grooves are much more common than the perforated, being probably more easily made, and more shapely to handle. The perforated one first sent was not a good one; it was clearly a bit of Morayshire stone left over from building his new house, Mr Bruce says. The two last sent are more typical ones. No. 1 is an ordinary water-worn stone, with a perpendicular hole through it; the other, No. 2, is a work of art; it is more pointed in shape, and has a hole cut through horizontally, the object being that the line may not touch the bottom, and so be likely to be cut, and for the same reason the grooved sinkers have no groove cut across the bottom of the stone. The fishermen have a sort of personal affection for their sinkers. Mr Bruce says the man who gave him No. 2 said he lost it shortly after he had made it, and many years afterwards it was thrown up by the sea, and he found it again, and he seemed much elated over its recovery, as of an old friend. Heavier sinkers are used for the long lines at the far off deep sea or Haaf fishing, and smaller and lighter stones on the shorter and lighter lines used for the inshore fishing. Buoys are occasionally used, made of the skin of a dog or whole or half a sheep—the two extremities being left at one end, and a wooden board across the other. When a buoy is used, it is fastened to the end of the line by a buoy line of 40 fathoms or more in length

Fair Isle.—On the 25th of August, I had the pleasure of forming one of a large party which Mr Bruce took in a steamer to spend the day at Fair Isle. Luckily the weather was very favourable, and so the dreaded Sumburgh “roost” was passed without much difficulty, and we were fortunate enough, from the smooth sea, to be able to be landed on the island in the boats, at the south harbour, where the people were all gathered to meet us and give us a welcome. With Mr Bruce and Mr Lawrence, the official head of the island, I made a run over and saw most of the places of interest. At Kennaby, for all the little homesteads are named, I saw the mound where the various stones were got, and was fortunate enough to pick up one of the curious rudely-manufactured stones still lying close by. I saw also the two portions of the fine grain rubber in a newly-erected dry stone dyke, and got them sent by Mr Bruce.

At Gillie, apparently, there was another somewhat similar low mound, which might, like the other, have been what we are in the habit of calling a Pict's house; and here also, among the rubbish, I picked up a pestle stone, marked with abrasions at its extremities. These I have the pleasure of presenting to the Museum.

We ascended the central valley of the island above the little scattered hamlet, towards an upper house, the homestead of settlers, and here saw the remains of a much larger mound, which had been partially cut through, and seemed mostly formed of a smaller class of stones. Near this house was a perforated oval boulder of sandstone, which is also sent to us by Mr Bruce, and a coarse grain rubber was also noticed.

A most interesting day was spent looking at the natural beauties of the bold cliff scenery surrounding the island, as well as the many archaeological objects of interest, and our steamer then took the large party all safely back to their homes on the mainland of Shetland.

The thanks of the Society are due to Mr John and Mr George Bruce, but especially to John Bruce, Esq. of Fair Isle, and younger of Sumburgh, for his great kindness in collecting for us and sending to us every Shetland object of interest that has come in his way, or that I could suggest as in any way likely to be of interest to the students of Archaeology.

MONDAY, 9th April 1883.

ARTHUR MITCHELL, M.D., LL.D., Vice-President, in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows :—

HON. HEW HAMILTON DALRYMPLE, Oxenfoord Castle.

ALEXANDER A. FERGUSON, 11 Grosvenor Terrace, Glasgow.

R. G. WOBRIGE GORDON, Grenadier Guards.

WILLIAM FORBES LEITH, Stonyhurst College, Blackburn, Lancashire.

DAVID LUMSDEN of Fincastle, Perth.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors :—

- (1.) By the TRUSTEES of the late JAMES NEISH of the Laws, F.S.A. Scot.

Collection of Objects found in the course of the excavation of the fortified Hill of the Laws, near Dundee, as described by Mr Neish in the *Proceedings*, vol. iii. p. 440, consisting of—

A small Stone Cup formed of an ovally triangular pebble, 3 inches by $2\frac{1}{2}$ inches, the hollow $1\frac{3}{4}$ inch diameter, and 1 inch in depth.

Four perforated Whorls of sandstone, from $2\frac{1}{4}$ to $1\frac{1}{4}$ inches diameter.

Disc of sandstone, $2\frac{1}{4}$ inches diameter, with indented hollows on both sides.

Five flat circular Discs of sandstone, from $3\frac{5}{8}$ inches to $1\frac{3}{8}$ inches diameter.

Two Flint Chips, a fragment of Hæmatite, two fragments of Rock Crystal, and a flattish oval Pebble of concretionary origin, $2\frac{3}{4}$ inches diameter.

Two portions of Vitrified Sandstone, with impressions of charcoal.

Small oval Disc of sandstone, 1 inch in length by $\frac{3}{4}$ inch in breadth, and less than $\frac{1}{4}$ inch in thickness, with an irregular hollow in one of its flat surfaces.

A small Cowrie.

Double-edged Comb of bone (fig. 1), $3\frac{3}{8}$ inches in length by $1\frac{1}{2}$ inches in width.



Fig. 1. Double-edged Comb of Bone, from the Laws ($3\frac{3}{8}$ inches in length).

Implement of Bone, 4 inches in length, with a flattened projection in the middle pierced by a small hole.

Teeth of the Horse and Pig; Horn of a Roebuck.

Portion of a Needle of iron, $1\frac{1}{2}$ inches in length, retaining the eye, a small round hole perforated in the slightly flattened and bulging end of the needle.

A small circular Buckle of iron, 1 inch in diameter.

Pin of iron (fig. 2), with open circular head carried on a slight projection at right angles to the upper part of the pin, similar to a pin of bronze found in the Broch of Bowermadden, in Caithness. A clay mould for another bronze pin of this form was found in the Broch of Lingrow, Orkney.

Two large Axes-Heads of iron; one Head of an Adze or Hoe; portion of an iron Sword-Blade, single-edged; and portions of several other Implements of iron.

Copper Disc, apparently a coin beaten flat, partly perforated in the centre, and notched round the circumference.



Fig. 2. Pin of Iron, with open Circular Head, from the Laws (actual size).

Pin of a Bronze Fibula (fig. 3) of an early Iron Age form, beautifully patinated, $3\frac{1}{2}$ inches in length.

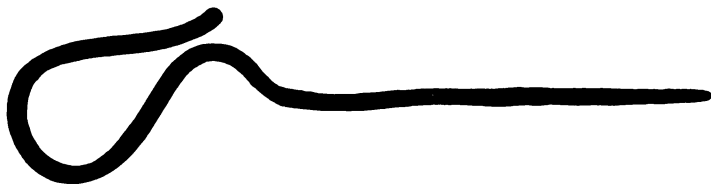


Fig. 3. Pin of Bronze Fibula, found at the Laws (actual size).

Spiral Ring of four twists of bronze wire (fig. 4), the opening of the coil being an inch in diameter; one of the terminations of the ring shaped in the likeness of an animal's head, the other broken.



Fig. 4. Spiral Ring of Bronze, found at the Laws (actual size).

Two bottles of charred Grain, apparently wheat and barley.

Flat circular Band or Ring of thin brass, 1 inch in width and $3\frac{1}{4}$ inches diameter, with stamped borders, and an open circular pattern along the middle of the band, also stamped.

(2.) By J. M. DOUIE, Bengal Civil Service.

Bronze Dagger, cast in one piece, $7\frac{1}{2}$ inches in total length, the handle $3\frac{3}{4}$ inches in length, the blade 2 inches in width and $\frac{3}{8}$ inch thick in the centre at its junction with the hilt, the upper part of hilt on the top of the pommel ornamented with sunk spaces, which appear to have been filled with enamel. The weapon, so far as is at present known, is unique, no instance of a bronze dagger having hitherto been recorded from India, and no example of a dagger of this special form and character having been anywhere met with. Mr Douie furnishes the following notice of the circumstances in which the dagger (fig. 5) was found:—

“A few years ago I spent some time in Fort Munro (also called Sandemanabad), a place in the Suleman Hills about 20 or 30 miles

beyond the British border. It lies nearly due west of the town of Deraghazi Khan, which is the headquarters of one of our Punjaub frontier districts. The hills to the west of Deraghazi Khan are occupied by various tribes of Biloches. There is some reason to believe that they were once inhabited by tribes of Jat origin, similar to those which are now found in the south-west of the Punjaub. The knife was brought to me by a hill Biloch, who said he had found it in the waste land. He probably found it under some bush on one of the hillsides."

(3.) By H. RIVETT-CARNAC, C.I.E., F.S.A. Scot.

Collection of Stone Implements, &c., from the Banda district, North-Western Provinces of India, comprising—

Four polished Stone Celts of diorite, varying from 6 inches to $4\frac{1}{2}$ inches in length, somewhat triangular in shape and pointed at the butt.

One Celt of basalt, roughly chipped and partially polished, $5\frac{1}{2}$ inches in length.

Five Cores of chert, from $1\frac{1}{2}$ inches to 1 inch in length.

Twenty Flakes and Chips of chert. (See the subsequent communication by H. Rivett-Carnac.)

(4.) By Rev. GEORGE WILSON, Glenluce, Corr. Mem. S.A. Scot.

Polished Celt of felstone, from Greenlaw, Berwickshire. It measures $8\frac{1}{2}$ inches in length and $2\frac{1}{2}$ inches across the cutting face, is oval in the cross-section, tapering to the butt, the sides ground flat. It has been apparently little used, as the marks of the grinding are still visible over the whole surface.

Forty Flint Arrow-Heads, four Flint Saws, and one slender Tool of Flint, from Glenluce.



Fig. 5.
Bronze Dagger, from the Punjaub ($7\frac{1}{2}$ inches in length).

Three small Whetstones and two Stones with indented hollows on their opposite sides, from Glenluce.

Portion of Antler of Red Deer, 17 inches in length, consisting of the upper part of the beam and two terminal tines.

Horn of the left side of an Elk, brought up with the first mentioned antler in a salmon net in the estuary of the River Cree. (See the subsequent communication by Dr John Alexander Smith.)

(5.) By DAVID PHILIP, through HEW MORRISON, F.S.A. Scot., Brechin.

Axe-Head of iron, 8 inches in length, found under 5 feet of peat at Hunthill, parish of Lethnot, Forfarshire.

(6.) By PATRICK DUDGEON of Cargen, F.S.A. Scot.

Rude Implement of sandstone, pointed, 11 inches in length, from Unst, Shetland.

(7.) By J. ROMILLY ALLEN, F.S.A. Scot.

Chinese Wooden Lock, from Foo-Chow. (See the subsequent communication on Chinese Wooden Locks, by Mr Allen.)

(8.) By JOHN J. STITT, F.S.A. Scot., Dalkeith.

Twenty Proclamations, &c., of the reigns of James VI., Charles I., the Commonwealth, Charles II., William and Mary, and George II., saved from the fire of the Tower of London.

(9.) By GEORGE SIM, Curator of Coins.

Ezechielis Spanheimii Dissertationes de prestantia, et usu Numismatum. 4to Elzeviri. Amsterdam, 1671.

(10.) By the EDINBURGH NATURALISTS' FIELD CLUB.

Transactions of the Edinburgh Naturalists' Field Club. Vol. I. part I.

(11.) By the SOCIETY OF ANTIQUARIES OF BONN.

Jahrbucher des Vereins von Alterthumsfreunden in Rheinlande.
Parts 70-72.

(12.) By the SMITHSONIAN INSTITUTION, Washington, United States.

First Annual Report of the Bureau of Ethnology to the Secretary of
the Smithsonian Institution, 1879-80.

(13.) By the ROYAL LIBRARY, Dresden.

Die Bildwerke der Koniglichen Antikensammlung zu Dresden. Von
Dr Hermann Hetterer.

Das Konigliche Museum der Gypsabgusse zu Dresden.

(14.) By the ROYAL LIBRARY, Copenhagen.

Bornholm's Aeldgamle Kirksbygninger af Hans J. Holm. Folio.
Copenhagen, 1878.

Sjaellands Stiftlandsby Kirker. Folio. Copenhagen, 1880.

The following Communications were read : -

I.

NOTICE OF A FRAGMENT OF AN OGHAM-INScribed SLAB FROM
SHETLAND. By GILBERT GOUDIE, F.S.A. Scot.

As is now well known, the special area of this remarkable class of monumental inscriptions is Ireland and Wales. Beyond these purely Celtic districts the known examples are extremely rare, and they are confined to places now or formerly under influences of the Celt. Of these examples the Scottish mainland has furnished five, the Orkney Islands one, and Shetland four. These Shetland Oghams are, the Bressay Stone, the St Ninian's Stone, the Lunnasting Stone, and a small fragment from the parish of Cunningsburgh.¹ All these stones are in the Museum.

A fifth specimen is now before us from the same quarter. It was found close by the burying-ground surrounding the ancient and long-disused church of Cunningsburgh, and the finder is the Rev. George Clark, Free Church minister there, who has been so successful in unearthing other remains of a former civilisation on the spot.² Mr Clark placed the stone in my hands some years since, shortly after its discovery, but I have been unable to bring it under the notice of the Society until now. Another and smaller fragment, found at the same place and about the same time, is still in his possession.

Unfortunately, all that is left of the present stone is a mere fragment—one end of a slab of grey sandstone, the original size and form of which cannot now be determined. The general effect of the fracture is to leave

¹ The Bressay Stone is described in the *Proceedings of the Society*, vol. xii. p. 20; the St Ninians and Lunnasting Stones formed the subject of a notice which I communicated shortly after their discovery, *Proceedings*, vol. xii. p. 20. The fragment from Cunningsburgh consists of only two letters.

² A Rune-Inscribed Stone (*Proceedings*, vol. i. (New Series), p. 165); Stone Cup and Stone Celt (Paper by Professor Duns, F.S.A. Scot., vol. iii. (New Series), p. 211).

an irregularly triangular piece measuring 13 inches in length by $7\frac{1}{2}$ inches in breadth at extreme points, and about $2\frac{1}{2}$ inches in thickness. The inscription is clearly cut, and for most part well preserved, a few only of the letters being doubtful. It consists of two inscribed lines, the *feasg* or stem-line of the one being incised on the broad surface, while the natural angle is used as an imaginary stem-line for the other, as is almost invariably the case in the Irish examples. The digits or scores forming the letters are of the ordinary kind, vertical or oblique to the stem-line, as in the alphabetic scales in the *Book of Ballymote*. Another example from Shetland, the Lunnasting Stone, shows a conglomeration of consonants, with an almost entire absence of vowel characters; but in the present case the vowels are clearly-formed scores, somewhat shorter than the consonants, crossing the stem-line vertically as in other Scottish examples, and not dots or notches, as is the prevailing form of the vowel characters in Ireland. In the only known specimen from the Orkney Islands (the Burrian Stone), in the stone from Lunnasting in Shetland, before referred to, and in the smaller fragment from Cunningsburgh, already in the Museum, the scores forming each separate letter are "tied," or bound together, at the extremities, seeming, in that respect and otherwise, to indicate a local style known nowhere else. The present fragment is destitute of that peculiarity; hence it might be regarded as possibly earlier than those examples.

The obstacles to the satisfactory rendering of an inscription in Oghamic characters are well recognised. They arise from the uncertainty as to the language or archaic form of dialect in which it is expressed, and from arbitrary variations in the characters employed, and in the powers attributed to them. Some time after the stone came into my possession I sent a rubbing and a careful transcript of the lettering to Professor Rhys of Oxford, and he favoured me with his views in the following letter:—

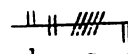
ST GERMAINS, OXFORD, Nov. 13, 1880.



DEAR SIR,—I am very sorry to say I cannot assist you in any way in making anything out of the Ogham. First of all, there is a difficulty as to the direction of the reading. Looking at the inclination of the digits, I am inclined to think

that the two lines read in the same direction, and that the one is not a continuation of the other round the top of the stone. Further, I should take it that the natural fleasg is to be read first, and as the reading is usually from left to right, only one position of the stone would satisfy these conditions, thus:—

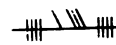

(a)
(b)

d w (or v or f) d d r l
e h t e c o n m o r

Instead of the latter part of (a), I should suggest  As to (b) I

should regard *e h t e* as the end of some word which might be either Teutonic or Celtic; if the latter, it would be more usually written with *ch* for *h*. The character  is very unusual, and I suppose here it stands for a mutilated . The nearest name to Connor associated with Scotland would be *Cennmor* or *Ceanmor*; but Connor is itself a name which occurs in Cornwall as *Cunomori*, and in modern Welsh as *Cynfor*; in modern Gaelic it ought to be *Connhor*, but I am not aware that it occurs. However, that is no proof that it was not in use in Scotland and Ireland. If the name is either meant for *Cennmor* or *Connor*, then the inscription is probably later than the ninth century, and the same thing is also suggested by the artificial fleasg; in fact, I should not be surprised if it turned out to be of the time of the Norsemen, and written in Norse. However, the data are far too scanty for one to speak with any certainty. . . . I remain, yours very truly,

JOHN RHYS.

This letter, for which I have to express my best acknowledgments to Professor Rhys, exhausts almost all that need be said on the subject. I took occasion, however, to mention the inscription to Professor Mackinnon, and also to Mr G. M. Atkinson, London, the editor of *The Ogham-Inscribed Monuments of the Gaedhil in the British Islands, &c.*, whom I have long known as a laborious worker in this field. Professor Mackinnon agrees with Professor Rhys in the opinion that the termination  (*E H T E*) is not a recognisable Celtic form, either ancient or modern; and Mr Atkinson's views on the whole rendering correspond so closely with those of Professor Rhys, already given, as to make it

unnecessary to print his letter, which otherwise should have been given in full. The fact is, that the reading of the characters admits of but slight diversity of opinion beyond conjectures as to what the few partially defaced or missing strokes may have originally been. For instance, the first remaining character \perp (D) of the line (a) is doubtful. It is close to the fracture, and would rather seem to be the termination of a letter consisting of more numerous scores. At the characters $\backslash \perp$ (D D) further on in the same line the surface of the stone on the lower side has scaled off, so that it is doubtful whether the scores in both cases may not have been carried across the line, and also whether there may not have been another character in front of them in the apparent hiatus after $\overline{\overline{\overline{\quad}}}$ (W). Both

Professor Rhys and Mr Atkinson surmise that the prolongation of the scores may have been the case with the second character, and consequently suggest \perp (O) instead of \perp (D). In the same way, the surface is abraded at the terminal letter rendered $\overline{\overline{\quad}}$ (L) of the same line (a). For this the letter $\overline{\overline{\overline{\overline{\quad}}}}$ (N) is suggested, supposing three additional scores. On a careful study of the stone, traces of two of these additional scores can be made out. It might therefore be read $\overline{\overline{\overline{\overline{\quad}}}}$ (S). The rendering of the second line (b) admits of no doubt. The characters are perfectly clear throughout.

As regards the general result, it may be stated that both lines of the inscription are imperfect, terminal; while the first (a) cannot be deciphered with certainty from defacements. The well-preserved clearness of the second line (b) is marred by doubts as to the linguistic quality of the remanent portion of one of the words—ЕНТЕ. While this presents difficulties from the point of view of Celtic scholarship, it seems to me that the objection applies equally to any interpretation based on the analogy of the Norse. I cannot detect any resemblance readily recognisable through the medium of that language; and cannot therefore concur with Professor Rhys in his suggestion that the stone may be

assigned to a later date than the ninth century on the supposition of the language being Norse. The pity is that the portion left to us is so merely fragmentary that certainty on all these points is unattainable. And the uncertainty is increased by an additional character $\overline{\text{||||}}$ (s), visible only

in certain lights, which I find on the end of the stone as an apparent continuation of the line (b), and which escaped notice when the rubbing and transcript were sent to Professors Rhys.

Having on a former occasion attempted to determine the approximate age, and to point out the special significance of these Shetland relics, found as so many waifs far away from the primal seats of Celtic culture in Ireland, I shall only say in a word that they may be accepted as memorials of an early Christian age in the northern islands, if not from a time prior to the invasion of the pagan Norsemen, more than a thousand years ago, certainly as survivals into the Norse age from the religion and culture which the Norse superseded.

At the same time, in the case of the stone at present under consideration, while it may be of comparatively late date—the tenth or eleventh century,—there is in itself nothing absolutely at variance with the possibility of its having come down from an earlier and pagan period. If, as early Irish records would lead us to infer,¹ writing in Oghamic characters was in use among the Celts of Ireland before the spread of Christianity in that country, it is not improbable that the practice would also have extended to the Celts in Scotland, from whom it might have been communicated to their pagan congeners in the northern isles. But, from the stone in question having been found on a sacred site of great antiquity, and from all the considerations otherwise connected with it, the propriety of ascribing to it a Christian origin would seem scarcely to admit of doubt. In Oghamic remains it is the exception to find trace of anything bearing areligious significance. And in the present case there is apparently little more than the name of the person commemorated, in the usual

¹ *Book of Leinster*, the tale "Tain Bo Chuailgne": Tract, the "Battle of Gabhra"; MS., *Leabhar-na-h-Uidhre*; *Book of Lismore*, &c.

way. And that name is one that is readily recognisable as the Celtic Ceanmor.

A somewhat curious circumstance, having a bearing upon the subject of this paper, may be mentioned in conclusion. The natives of the district in which this stone was found, and one of whose early residents it may be assumed as commemorating, are noted for characteristics of temper, character, and perhaps also physique, which distinguish them from the body of Shetlanders generally, and have given rise to surmisings that theirs is a different race origin. I am informed by Mr Bruce, younger of Sumburgh, that some short time since the Anthropometric section of the British Association desired a set of specimen photographs of types of native Shetlanders for the purpose of comparison on their own special line of investigation. Seventeen such photographs were sent by him in reply to their request, including those of three natives of Cunningsburgh, and these last were all pronounced to be *Celtic*! The rest, of varying physiognomy and complexion, though mostly fair, were unmistakably Scandinavian. According to this view, therefore, the present Ogham-inscribed Stone from Cunningsburgh is not the only relic from the Celtic age in that district that has come down to the present day.

II.

NOTICE OF AN ORIGINAL TACK OF TEMPLE LANDS IN 1461, BY SIR
HENRY OF LIVINGSTONE, KNIGHT, COMMANDER OF THE ORDER
OF ST JOHN OF JERUSALEM IN SCOTLAND. BY JOSEPH BAIN,
F.S.A. Scot.

This document is among the fine collection of ancient charters once in the possession of the Livingstones, Viscounts Kilsyth, which came last century into the hands of the Edmonstones of Duntreath, when they acquired the barony of Kilsyth. Having¹ been afforded the opportunity of seeing some of these, I obtained permission to print the above and the "Warning" to the outgoing tenant to remove. I apprehend we know but little of the history of the Scottish branch of the Knights of St John of Jerusalem; and until some competent person undertakes this with the aid of the charters and papers at Calder House, as recommended by the late Dr John Stuart in his Report on Lord Torphichen's muniments, for the Historical MSS. Commission in 1871, we shall still be much in the dark. Mr Riddell, in his disquisition on the unique position of the Torphichen peerage,² as possibly the only surviving territorial barony in Scotland, the dignity of which he held to be inherent in the possessor of the "meane portion" and ruins of the old preceptory in Linlithgowshire, gives some interesting particulars as to their settlement at Torphichen as far back as the time of David I., with rights of regality, chancery, sanctuary, and other high privileges; adding the names of several of the preceptors, who were generally members of distinguished Scottish families, as Dundas, Lindsay, Livingstone, and others. He also remarks on the curious semi-laic semi-clerical position of the head of the house, who sometimes sat among the abbots and priors, and at other times among the lay barons, in the Scottish Parliament. In addition to these

¹ By the courtesy of Mr A. R. Duncan, advocate, son-in-law of Admiral Sir William Edmonstone of Duntreath.

² *Remarks on Scotch Peerage Law*, 1837, pp. 59-66; and *Peerage and Consistorial Law*, 1842, vol. i. pp. 88-97.

instances given by Mr Riddell, I may add one from a charter by James IV., under his Great Seal, dated 31st January 1504, ratifying an Act by the Lords of his Counsale, two days before, in favour of William, Lord Levingston, wherein William "Lord of Sanct John's"¹ appears at the end of the "Noble and mighty lords," and immediately before the "venerable faders in God" the Prior of St Andrews, Abbot of Dunfermline, and others (Kilsyth Charters).

Though their asserted Hungarian ancestry is probably as fabulous as that of the Drummonds, the Livingstones were an old and distinguished family, and made their mark in Scottish history during the minority of James II. They subsequently held two earldoms—those of Linlithgow and Callendar, and besides, the viscounty of Kilsyth,—all three forfeited for their holders' complicity in the Jacobite risings of 1715. As yet, they have found no family historian beyond what is contained in Douglas's *Peerage of Scotland*, which a casual glance shows might be amended in many particulars. The Earl of Errol is the lineal representative of the Livingstones, Earls of Linlithgow and Callendar, and curiously enough is the representative of another historic house—the Boyds, Earls of Kilmarnock, who suffered and bled in the romantic cause of the Stuarts.

The importance of the family is shown by their charter chest, from which we see that they represented an ancient race in the Lennox, the Calendars of Calendar, and besides their lands there and in Stirling and Linlithgow-shires, were considerable proprietors in Dumfriesshire in the fifteenth century, no doubt acquired through their alliance in the fourteenth with the house of the Douglasses of Dalkeith. They were a clannish family, as in many of the deeds, Livingstones of various grades, cadets, and lesser landowners, chaplains, notaries, &c., are found in close attendance on the heads of the house. This clan feeling doubtless gave rise to the following deed by the Preceptor of Torphichen in favour of his two nephews. According to Douglas's *Peerage* (art. "Kilsyth"), the Preceptor

¹ This was the celebrated Sir William Knollis, the immediate successor of Sir Henry Livingstone, who governed the Order for half a century, and fell at Flodden.

was the second son of the first Livingston of Kilsyth, who himself was a younger son of the main stock of Calendar.

"Be it kend til al men be yir present lettres us Frere Henry of Levynngstone Knicht Commandour of ye Ordre of Sant John [of] Jerusalem within ye kynryk of Scotland to haf set and to male lattan and be yir present lettres setts and to male latts til our derraste cusingis Williame of Levynngstone and Alisiandre of Levynngstone sonnys til umquhile our derraste brothir William of Levynngstone of Balcastell Al and Hale our lands callet ye Briggs lyand within the lordship of Tempil-liston, To be haldin and to be had al and hale ye saide lands of ye Bryggis w^t ye pertinence to ye saids Williame and Alisiandre and til ilk ane of yaim coniunctly and severali w^t al and syndry profyttis asiaments and commodities and richtwise pertinence and w^t syclike fredomes and profyttis as umquhil John Uchiltre had ye saids lands in maling of us, for al ye termes of thre yers next and togydd^r eftir folowing ye feste of Witson-day next eftir folowing ye date of yir present letteris, And enterand in tak of ye saide land w^t ye pertinence at ye said feste of Witsonday, yat is to say in ye zer of God a thousand foure hundreth sexty and twa yers; With licence and power to mak subtenands under yam in ye saide lands induring ye termes of thre zers forsaide, Payand zerlie tel ws and our Hous of Torfichin ye saide William and Alisiand^r or quhilk of yam at happyins to occupy ye saide lands or yar subtenands, Ten pounds off ye usuale mone of Scotland at twa usuale termes of ye zer, yat is to say Witsonday and ye feste of Sant Martine in wynter be evinle porcionez w^t oyr do service acht and wont: In witnes of ye quhilk thing ye [common?] sele of our office is affixit to yir present letteris of assedacion at Torfichin ye xx day of ye monethe of September ye zer of our Lord a thousand four hundreth sexti and ane zers."

The large oval seal in red wax of the preceptor has been affixed on the face of the instrument, and, as usual in similar cases, has utterly perished. One, however, is preserved in Laing's *Scottish Seals* (1st series, 1850, p. 204, No. 1132)—described as "Full length female" figure, holding the Paschal Lamb, surrounded with the nimbus. At the

dexter side a rose, in the lower part a shield charged with a cross: *leg.* 'Sigillum Comune de Torfiching', appended to a charter by Sir Henry Livingstone to Thomas Buchanan of the temple lands of Letter, county Stirling, in 1461 (Kilsyth Charters). This seal is still extant, and was lately seen by the writer. The document is well and clearly written on paper with few contractions, but is much stained by water, and is worn in one or two places.

The "Warning" by the reverend knight's bailiff follows thus:—

"Til al and sundre quhais knowlege thir present lettres sal to cum, Gawane of Levyingstoune greting in God. Forquin y^t meritable is to bere lele witnes to ye suthfastnes, herefore it is y^t til zoure universete be yir presents I mak it kend yat a certane tyme bigane I as baleyhe in yat part til a venerable and religius man Frere Henry of Levyingstoune, Kny^t, Preceptour of ye Ordre of Sanct Johne of Jerusalem wⁱⁿ ye kynrik of Scotland passit at ye commandment of ye said lord Preceptour w^t a letter of powere deliverit to me y^upon to ye land of ye Briggs w^t ye pertinents liand within ye lordschip of Tempil liston, and w^t me ye temple seriand of Liston and oyr certain witnes for ye sam cause, and there at ye chefe place of ye said lands eftir yat my lettres of powere gevin to me y^upon was red in plane audience, I chargit Alane of Lere-month yan occupare of ye said land to remufe and devoyd ye grund of al and sundrie his guds yare being, and I gart ye serjand pass in ye hous and put out¹ certain guds of ye said Alane, forbidding and chargeing him on ye behalve of oure Soverane Lord ye King of Scotland and on ye behalve of ye said Lord Precepto^r lord of the grund, to occupy ony manere of way ye said land in tyme cuming under all¹ payn and charge quhilk aferis of law And yan incontinent be ye powere and charge gevin to me I assignit William of Levyingston and Alexander of Levyingston brether germane, yare present, to ye tak and maling of ye said land w^t ye pertinents, and put yam in possession yarof eftir ye form and tenor of ye lettres of assedacion of ye said Lord Precepto^r made to yam y^upon And yis to al and sindri quhom it aferis I mak suthfastly

¹ Original mutilated.

must have been much lower, and that the cave has since been filled up with rubbish. I should much doubt this, however, for, even to the very end of the cave, the floor is covered with large and heavy stones, which could hardly have accumulated there by chance, even in the course of two centuries, and it is difficult to see what purpose it could have served any one to bring them there. I examined a large number of these stones, and on several of them I found inscriptions, amongst others one bearing to be of the seventeenth century.

Until recent years there was nothing except the name of the cave, and a vague tradition current in the district, to suggest that it had ever afforded shelter to a worthier guest than the rock pigeon. But the tradition which ascribed ecclesiastical associations to the place received a few years ago singular confirmation, by the discovery of a small cross carved upon a rock a few yards in front of the cave. When I first knew the spot, this cross, which, from long exposure to the weather, had become somewhat indistinct, was the only relic of antiquity known in connection with the cave. But a few months ago it occurred to a gamekeeper on the Glasserton estate to dig down a foot or two in the ground at the base of the rock. His enterprise was rewarded by the discovery, at depths ranging from a few inches to a couple of feet from the surface, of three more crosses, all very similar to each other and to the first-mentioned cross. The central and largest of these three crosses is so clearly chiselled, that it is difficult to believe that it is a relic of an almost forgotten age. This cross is perhaps the most perfect of the four, but unfortunately its lower limb is marred by a fissure or other geological movement in the rock. The third cross, which is on the south or sea-board side of the large one, is also very clearly chiselled. The fourth, on the cave side, is imperfect, and in part wholly untraceable. Whatever be their history, these crosses must all be of very considerable antiquity, for, although two of them show no signs of wear, the earth which formerly covered them had acquired all the consistency of ordinary soil. To the formation of this deposit we no doubt owe the preservation of these two crosses in their present form; indeed, these two contrast singularly, in regard to

their state of preservation, with the first discovered cross, which must have been exposed to the weather ever since it was chiselled. The fourth and imperfect cross must have been the best and longest sheltered from the weather of the four, and it is therefore difficult to account for its present state. I can only conjecture that if it were more than a rudimentary cross, it has been defaced by detrition of the rock through friction. I should have noted that whilst the three last discovered crosses are all nearly on the same level, and within a few inches of each other, the first mentioned is directly above them, a few feet from the ground. Whether the removal of the whole bank of earth, which has accumulated near the mouth of the cave, would reveal the presence of other crosses or relics of antiquity, it is difficult to conjecture. At all events, I was not so successful as the gamekeeper, for although I more than doubled the size of his excavation, I found nothing more.

The crosses are all more than six inches, and less than a foot in length, and the general design of all four is the same. I may explain that design thus. Describe a circle, accentuating the centre by a clearly indented dot. Then divide the circumference into eight equal segments, and on each alternate segment inscribe an arc of a circle, and obliterate the segment upon which the arc is so inscribed. We thus get a complete cross with four equal limbs. The shaft or lowest limb is then produced to double its length, and the work is complete. In all of them the complete cross, with the four equal limbs, is clearly traceable. This is particularly marked in the large central cross, which is a perfect cross without the extension of the lowest limb.

I have now to describe a larger, and, as it seems to me, a more interesting piece of sculpture. Two crosses were discovered carved on a common sea boulder lying on the floor of the cave, which had probably hitherto escaped observation through the boulders having been built into the old wall across the mouth of the cave to which I formerly referred. On the discovery of the crosses, a couple of years ago, the stone was removed to Kidsdale, a farmhouse in the neighbourhood, where it is now preserved. It is common flat sea boulder, in shape somewhat like a coffin,

and about 20 inches in length, 4 to 8 in breadth, and 2 to 4 in thickness (see fig. 1).

On the upper portion of the stone there is a cross similar to those already described, but without the prolongation of the shaft. The artist

here, too, has revealed his design, for the cross is inscribed within a complete circle cut in the stone. Within the circle the cross stands in high relief, having been formed by chiselling out portions of the stone, thus differing from the other crosses already described, which are mere outlines. Beneath the circle, and in contact with it, so that they have one line in common, is a cross almost exactly similar to those carved on the rocks, but with a longer proportional shaft. This cross is simply traced in outline, and does not stand out in relief as does the cross above it.



Fig. 1. Stone with Incised Crosses from St Ninian's Cave, Glasserton (20 inches in length).

Another stone (fig. 2), similarly sculptured, was discovered some time ago, and has fortunately been secured for the National Collection in the Society's Museum, having been presented by Robert Johnstone Stewart, Esq. of Glasserton, through Arthur Mitchell, M.D., LL.D., Vice-President of the Society, on the occasion of a recent visit by the latter to the cave.

This stone measures 25 inches in length, 9½ inches in greatest breadth, and 3½ inches in thickness. It presents the peculiarity of having two crosses incised on one of its faces, which have a general resemblance to the two on the other stone, except that the upper cross is not contained in a circle. Unfortunately a portion of one side

of the upper part of the stone is broken away, and the upper cross is thus incomplete.

I may note that in none of the crosses, either upon the rocks or upon the stone, was I able to detect the *chrisma*, although in two at least of the former there was a faint line which seemed to suggest it.

In conclusion, it is perhaps not irrelevant to remark, that in the discovery of these crosses we have a very striking confirmation of what was hitherto only a popular tradition. That St Ninian had anything to do with the cave which bears his name, or that the place had any historical associations, there was previously no evidence whatever. The story of the saint's retirement to this cave was merely a popular legend, unworthy to be credited by the critical antiquarian. Now, however, the rocks themselves have supplied conclusive evidence, not certainly that the cave was once tenanted by St Ninian, but at all events that the spot has ecclesiastical associations of high antiquity. That being clearly established, popular tradition ascribing those associations to St Ninian, who undoubtedly resided, and built a church in the immediate neighbourhood—and there being no evidence to the contrary, we are, I think, warranted



Fig. 2. Stone with Incised Crosses, from St Ninian's Cave, Glasserton (25 inches in length).

in concluding that in some way—to us unknown—this cleft in the jagged rocks which now bears his name was associated with the life's work of the great saint of Galloway.

IV.

NOTICE OF THE DISCOVERY OF STONE IMPLEMENTS IN BANDA,
NORTH-WESTERN PROVINCES, INDIA, IN A LETTER TO THE SECRETARY.
By J. H. RIVETT-CARNAC, M.A., C.I.E., F.S.A. Scot.

During the past few years, Mr J. Cockburn and myself have been fortunate enough to find stone implements in large quantities in Banda, a hilly district of the North-Western Provinces of India. These implements consist chiefly of stone axes, or celts of types well known in Europe. We have also found stone-hammers, ring-stones, and a variety of other implements, some of cosmopolitan types and others unique.

The celts found are upwards of 400 in number, and are of two distinct types, polished and chipped, the former of diorite and the latter of basalt.

We are of opinion that both types were in use at the same time. Implements of true palæolithic types made of quartzite occur scantily in the Banda district, but are more numerous further south.

The celts vary from $12\frac{1}{2}$ inches in length and 8 lbs. 3 oz. in weight, to $2\frac{1}{2}$ inches in length and $3\frac{3}{4}$ oz. in weight.

The unique specimens of hammers, &c., and the largest and most remarkable of the celts, have been presented by me to the British Museum. Sir P. Cunliffe-Owen, the well-known director of the Kensington Museum, has, however, been good enough to cast the best specimens, and I hope later to send a complete series of coloured facsimiles for your acceptance.

In the meantime, groups representing the classes of celts found have been made up for presentation to the principal Museums and scientific Societies of Europe and the United States, and I do myself the honour of intimating that a case containing celts, &c., has been sent to your

address, in the hope that they may be considered of sufficient interest to find a place in your Museum.

A few specimens of spalls or waste chips, flakes, and cores of chert may be of value for comparison with similar objects from other countries. The chert was procured in nodules and bands in the Tirhowan limestone—the agate from the beds of streams which cut through the Rawah conglomerate, south of Banda.

A larger collection of chert implements than has hitherto been made in India has been brought together by Mr Cockburn, who will describe them more fully later. The ethnic affinities of the collection are, he points out, curious. On one hand, the scrapers and knives are of European types, as are also the mass of the celts. Then there are certain types which clearly resemble Silices hitherto only found in Egypt by Jukes Brown.—*Jour. Anthropol. Inst.*, vol. vii.

A third type, apparently not common elsewhere, he designates the saw-backed knife, has recently been found in the island of Melos. The coarser description of stone knives of quartz, sandstone, and basalt are not far removed from those used by the modern Australian savages.

The arrow-heads, as far as can be judged, come nearer the multitudinous American forms than any other, but the resemblance may rather be due to the comparatively larger number of these implements which are known from America and their comparative rarity in other countries. Some of the chert implements are of recent origin, and we have come to the conclusion that stone implements were probably in general use among the Kolairian or Dravidian aborigines of this part of Bundelkhund, about 500 B.C., and that the use of stone among these people was not quite abandoned as late as 600 A.D.

A piece of sculpture, representing an aborigine armed with a stone axe, recently discovered at Kalinjar, is assigned to the seventh century after Christ. How far antecedent the use of stone may have been in this part of the country no one will venture to guess in the present state of our knowledge, but the majority of the implements have been found on the borders of the great Gangetic alluvial plain, itself of

no great antiquity. The alluvium in this part of Bundelkhund is largely made up of decomposed basaltic rocks, which crop up here and there to the very margin of the Jumna. No doubt this river has had much to do with the level and adjustment of this alluvium.

Some of the chert implements, which are much weathered, are no doubt of vast antiquity, but the evidence, so far as it has been sifted, is in favour of the theory that the people corresponding to the palæolithic men of Europe used excessively rude implements of jasper, quartzite, and basalt, rather than chert, which is by no means abundant.

V.

NOTICE OF THE DISCOVERY OF AN ANCIENT GRAVE AT BALFARG, FIFESHIRE, IN A LETTER TO THE SECRETARY. BY JOHN BALFOUR OF BALBIRNIE, F.S.A. SCOT.

Yesterday (March 28) in trenching a plot of ground enclosed in a garden at the farm house of Balfarg, close to the North Lodge and in my occupation, the labourer employed struck what he thought was the cover of a built drain. He removed a flat stone of some size, and several others, without giving much heed to what he was about, when he turned up a piece of bone, which on examination proved to be a portion of the remains of a human skeleton. Unfortunately the skull (which was in its proper place) was broken and injured, and had fallen to pieces. The bones of the limbs were in their proper places. In short, the grave had evidently not been disturbed.

The cist is carefully formed; the position from west to east; the slabs of stone on the top completely covered the cavity from end to end; the sides and bottom of grave are in their position, and have not been disturbed. It is remarkable that the grave is only about 18 inches—certainly not two feet—from the present surface of the ground.

The bones have crumbled away since they were exposed, and it is unfortunate that the place was so seriously disturbed when first discovered.

There is not, so far as I am aware, any record of any burial place in

that locality. Nothing has been found in the grave ; the soil is light and sandy ; some roots of trees had penetrated a little between the side stones ; but the tomb is carefully constructed, 6 feet in length, rather narrow and tapering to the foot.

VI.

NOTICE OF THE OCCURRENCE OF THE ELK (*CERVUS ALCES*, LINN., *ALCES MALCHIS*, GRAY), RECENTLY FOUND IN WIGTOWNSHIRE. BY JOHN ALEXANDER SMITH, M.D., SEC. F.S.A. SCOT.

Some time ago I learned from the Rev. George Wilson, Glenluce, that he had recently obtained possession of a "palmated antler and a fragment of large deer horn with three tines." At my request, he was good enough to promise that he would send them for my inspection, and he has now not only sent the horns, but also presented them to our National Museum, along with a large collection of stone implements. Of course, the Fellows are all aware how very much we have been, and are indebted to Mr Wilson for quite a series of collections of all kinds of stone implements, &c., beautifully arranged, from his district of Wigtownshire.

The palmated antler is of great interest. It is apparently a horn of the left side of a *true Elk*. Some years ago, in 1871, I brought before the Society a paper giving details of the true Elk for the first time discovered in Scotland. I was then able to bring together instances of its discovery from various parts of Scotland. This specimen furnishes us with a new locality in the south of Scotland. It is very distinct in character, the palm spreading out into its three branches, the broad palmated brow antler to the front, the beam-like portion running straight outward from the burr of the horn, and the large palm or back antler running apparently from the whole of the back part of the beam.

It was drawn out of the estuary of the River Cree, Mr Wilson informs me, somewhere between Newton-Stewart and Creetown, in a salmon net, and was given to him by the man who got them ; for the two horns, I understand, were got at the same time.

The discovery is of much interest, as it gives an additional locality in Scotland to this very rare species of our extinct deer. The other horn is the upper part of the beam of a very large round-antlered stag, a red deer, *Cervus elaphus*, showing the size attained by these animals when they roamed and fed over the best lands of the country. It is a richly



Horn of the Elk (*Alces malchis*), found in Wigtonshire.

marked horn, terminating above in two points, the third having been broken off, the whole showing the cup-shaped extremity of a round-antlered stag. The broken beam measures about 14 inches in length, and the points 7 and 5 inches respectively from the cup of the

the large circumference of the beam under the cup being 12 inches, and at the broken extremity $5\frac{3}{4}$ inches in circumference. The remains of various large red deer have been got from time to time in the moss or in the estuary of the Cree, and various examples of the Urus, the *Bos primigenius*, as Dr Arthur Mitchell also tells us in his interesting paper on the "Forest of Cree," brought before the Society in January 7, 1863 (*Proceedings*, vol. v.). This, however, is the first time I have ever heard of the presence of the Elk having been observed in this district.

The Society have been much indebted in various ways to the Rev. Mr George Wilson ; and this last donation is a valuable addition at once to our Museum and our knowledge of the district, for which Mr Wilson deserves our best thanks.

MONDAY, 14th May 1883.

PROFESSOR DUNS, D.D., in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows:—

CHARLES BARRINGTON BALFOUR of Newton-Don and Balgonie, Fife.

F. C. HUNTER BLAIR, B.A. Cantab., Blairquhan, Ayrshire.

CARUS D. CUNNINGHAM, 34 Melville Street.

REV. WILLIAM LOCKHART, M.A., Minister of Colinton.

The following Gentleman was also elected a Corresponding Member of the Society:—

REV. GEORGE CLARK, F.C. Minister, Cunningsburgh, Shetland.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

(1.) By Professor DUNS, D.D.

Ornamented Buckle of brass, from the island of Mull, semicircular in form, and measuring $1\frac{1}{2}$ inches in length by 1 inch in breadth, and about

$\frac{3}{16}$ ths of an inch in thickness. The semicircular edge of the buckle is channelled transversely and longitudinally, and the upper surface is divided by similar channellings into four panels, filled with rectilinear patterns.



Brass Buckle, from the Island of Mull (actual size).

- (2.) By Dr W. GEMMILL, Drummore, Stranraer, through Mr A. MACCONOCHIE of the Geological Survey.

Collection of Stone Implements from Wigtownshire, comprising—

Polished Celt of granite, $9\frac{1}{2}$ inches in length by $2\frac{3}{4}$ inches in breadth across the cutting face, the edges flattened, and the broader faces marked by three longitudinal facets, found at Kiliness, Wigtownshire.

Polished Celt of flint, $5\frac{1}{4}$ inches in length by $2\frac{1}{4}$ inches across the cutting face, edge slightly broken, found at Maryport, Wigtownshire.

Polished Celt of felstone, $7\frac{1}{2}$ inches in length by 3 inches across the cutting face, found at Achabreck, Wigtownshire.

Large perforated Stone Hammer, $9\frac{1}{2}$ inches in length, $4\frac{3}{4}$ inches in breadth, part of one side broken, found at Duplin, Balgowan, Wigtownshire.

Perforated Disc of sandstone, $2\frac{3}{4}$ inches diameter, from Drummore.

Collection of fifty-one Flakes, Cores, and fragments of Flint, some of which show secondary working, and may have been used as implements.

Disc of black glass, found at Drummore, $2\frac{3}{4}$ inches diameter and half an inch in greatest thickness, flat on one side, slightly convex on the other, resembling the "linen-smoothers" of that material.

- (3.) By ROBERT CARFRAE, F.S.A. Scot., Curator of the Museum.

Two Luckenbooth Brooches of silver, $\frac{3}{4}$ inch in length, heart-shaped; and one of the same size and form, gilt.

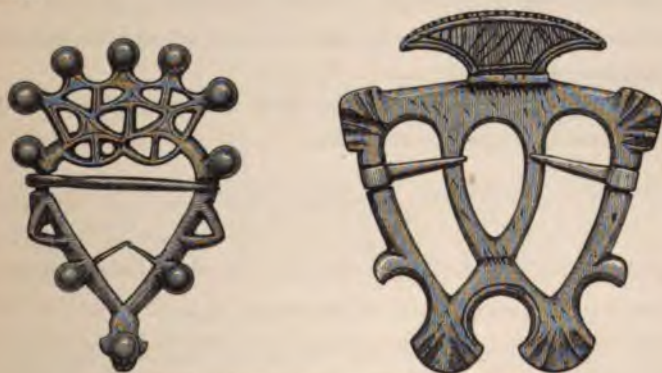
Two similar Brooches of silver, $\frac{7}{8}$ inch in length, set with garnets.
 One similar of silver, and of the same size, but the heart crowned.



Luckenbooth Brooches of Silver (actual size).

One small circular Brooch, gilt, $\frac{5}{8}$ inch diameter.

Two silver Brooches, heart-shaped, $1\frac{1}{2}$ inches in length, the heart crowned.



Luckenbooth Brooches of Silver (actual size).

Two similar Brooches of silver, both 2 inches in length.

One Brooch of silver, $2\frac{1}{2}$ inches in length, in the form of two hearts, crowned, with a pin at each side.

- (4.) By Rev. JOHN BROWN, Bervie, through Rev. J. GAMMACK,
Drumlithie, Corr. Mem. S.A. Scot.

Chalice and Paten of pewter, found in a grave in the churchyard of Bervie. (See the subsequent communication by Rev. J. Gammack.)

- (5.) By WALTER G. DICKSON, F.S.A. Scot.

Piece of Lead, $2\frac{1}{2}$ inches by 2 inches, and nearly half an inch thick, from the bottom of a Roman bath, at Bath.

- (6.) By WILLIAM JAMES HAY, Dunse Castle.

Flint-lock Pistol, 18 inches in length, found in the loch at Dunse Castle.

- (7.) By JAMES LEDINGHAM, through R. HENDERSON, 1 Ventnor Terrace, Mayfield Gardens.

Iron Key, $3\frac{1}{4}$ inches in length, attached by a link of the same length to a tally of iron, 4 inches in length, found on the Bass Rock.

- (8.) By THOMAS CHAPMAN, Jun., F.S.A. Scot.

Candlestick of wrought iron, with hook for suspension, and twisted stem, 16 inches in length.

Candlestick of wrought iron, with hook for suspension, and double expanding stem, $17\frac{1}{4}$ inches in length.

- (9.) By Mr CARSEWELL, Chirmory, through Rev. GEORGE WILSON,
F.C. Minister, Glenluce, Corr. Mem. S.A. Scot.

Spindle-whorl of dark stone, from Chirmory, Barrhill, Ayrshire.

- (10.) By JAMES A. SIDNEY, M.D., F.S.A. Scot.

Platter of turned wood, circular, $9\frac{1}{4}$ inches diameter, having in the centre of its upper surface a cup-shaped salt-cellar turned out of the same piece of wood, $2\frac{1}{4}$ inches diameter and 1 inch deep in the hollow.

- (11.) By ROBERT FERGUSON, F.S.A. Scot., the Author of
Surnames as a Science.

(12.) By J. T. IRVINE, Esq., F.S.A. Scot.

Seven Etchings of archæological and architectural subjects, viz. :—

Ancient Brough on the Burgie Goes, West Neeps, North Yell, Shetland.

Cup formed of shale, found at Lyster, Mid Yell, Shetland.

The Standing Stone of Suckanines, near Lund, Unst, Shetland.

Chester Blade Church and Font, Somerset. Summer Stones, and Copings of the same.

Fragments of the Temple at Bath.

View of Canons Ashby, the seat of Sir H. L. Dryden, Bart.—Old Entrance Front.

Sixteenth Century Carving in Oak, the property of Mr Charles Thornlee of Lichfield.

On the Crypt beneath the Chancel of Repton Church, Derbyshire. 8vo. pp. 8.

The West Front of Lichfield Cathedral. 8vo. pp. 8.

(13.) By Dr EDWARD C. ROBERTSON, Otterburn.

On a Discovery of Horses Heads in the Belfry of Elsdon Church, &c. 8vo. 1882.

(14.) By the Right Hon. the EARL of EGLINTON AND WINTON, through the Hon. G. R. VERNON and ROBERT MUNRO, M.D., F.S.A. Scot.

Collection of Articles obtained in the excavation of the Crannog at Buston, near Kilmaurs, Ayrshire. [See the *Proceedings*, vol. iii. (New Series), p. 110, and Dr Munro's *Ancient Scottish Lake Dwellings*, pp. 215–236.]

There were also exhibited a collection of Articles obtained in the excavation of the Crannog of Lochsponts, Ayrshire. Deposited by Sir JAMES FERGUSON, Bart. of Kilkerran. [See the *Proceedings*, vol. iii. (New Series), p. 107, and *Ancient Scottish Lake Dwellings*, by Dr Munro, pp. 169 and 310.]

The following Communications were read :—

I.

NOTICE OF A SCULPTURED REPRESENTATION OF ST GEORGE AT FORDINGTON, IN DORSET, AND OF A SIMILAR SCULPTURE AT LINTON, IN ROXBURGHSHIRE. BY SIR MOLYNEAUX NEPEAN, BART., F.S.A. SCOT.

In offering a few remarks upon St George, I suppose the first step is to give some information as to what is said of him prior to his becoming the patron saint of England.

Metaphrastus, who wrote in the ninth and tenth centuries, relates that he was born of noble Christian parents in Cappadocia early in the fourth century, and he is often mentioned as St George of Cappadocia.¹ After the death of his father he went to Palestine with his mother, who owned some property there, and when old enough took service under the Emperor Diocletian; but during that Emperor's persecution of the Christians, St George having remonstrated with him, the Emperor caused him to be beheaded.

His being the patron of soldiers is partly due to his being a soldier himself, and partly because he appeared to the Christian army under Godfrey de Bouillon before the battle of Antioch, and again to Richard Cœur de Lion during the Crusades, which miraculous events being made known to the troops, gave them so much encouragement that they forthwith defeated the Saracens with great slaughter. He was chosen by our ancestors as their patron saint under the first Norman kings, for what reason it is not easy to conjecture.

Having thus noticed the history, such as we have, of the saint, I will briefly allude to the church, in which is the original of the drawing which I have here, with the view of supporting my theory.

From Dugdale's *Monasticon* we learn that the church of Fordington was dedicated to St George, and was endowed with the church of St

¹ Greek scholars will doubtless remark the singularity of such a name being given to a patrician, as the word Γεωργος means a husbandman or labourer, from Γηρ εὐεργεῖν (one of the tenses of ἐργάω), meaning "to work the earth."

George at Dorchester by Osmund, Bishop of Salisbury, in 1091. It certainly appears from the style of the building that it was primarily erected some time previous to the Conquest. It is cruciform, and is a curious combination of the Saxon and Norman styles of architecture—*e.g.*, in the south aisle are two pillars with *Saxon* capitals, but crowned with the *Norman* arch.

The village of Fordington is the "Fortitone" of *Doomsday Book*, and the "Fortintun" of the time of Henry II., and derives its name from the ford which in olden time crossed the Frome river at this place "Fording-Tún," or, the town of the ford. "Ford" is from the Anglo-Saxon verb "faran," to go on or across. "Tún" expresses a town or village, more especially the group of houses round the proprietor's dwelling.

That there were fights between Christians and pagans in this locality appears pretty evident. When the bridge was built here in 1747, in place of the old ford, when digging for material in the vicinity, the workmen turned up about 200 skeletons, the skulls of many of which were peculiar, being of very remarkable thickness. Some of them lay east and west, others north and south. These were supposed to be the remains of men slain in the Danish wars, and that the difference of position marked the distinction between Christians and heathens. It has also been assumed that these were remains of people who died in the plague of 1340; but from the "separate" burials I should lean to the first theory, more particularly as a sword was found buried with one of the skeletons, and further, the victims of the plague were usually shot into pits without much ceremony.

The sketch which I now lay before you is from one taken about 100 years ago from Fordington church, and is engraved in Hutchin's *History of Dorset*. It represents an armed figure or knight on horseback (St George), who is riding down and destroying the heathens. Behind are two kneeling figures evidently asking quarter, their weapons placed behind them, the javelins apparently stuck in the ground and the shields resting against them. A glory is round the knight's head and a cross on the banderol of his lance. I think that this undoubtedly represents St

George slaying the heathen, which, as my learned friend Dr Anderson observed to me, appears to symbolise the triumph of Christianity over Paganism as much as the conquest of the dragon, "the great serpent" (typical of sin) in other representations of the saint. The rather pronounced form of the heathen nose *may* be attributed to their wearing "nasals," a nasal being a bar which, taking the place of the modern "peak," protected the nose and face from a sword-cut, but this is merely a suggestion.



Fig. 1. St George Triumphant over the Heathen, on the Church of Fordington, Dorset. (From a Photograph.)

It will be observed that the sketch is of an irregular fragment built into a wall. That from a photograph (fig. 1) differs in some trifling points from Hutchins'. The form of the shields for instance, the treatment of the knight's head, and the banderol, but "restoration" may have something to do with it.

Another instance may be noted of the knight and monster. I hope I may not bring on my innocent head the wrath of families connected with the sculpture, but there is in the church of Linton, in Roxburgh, a curious

figure of a knight charging a monster (fig. 2). Legend relates that a monstrous worm (the Anglo-Saxon "vyrn" or "wyrn" and the Norse "ormr"; compare Orms-Head) lived in this neighbourhood, and naturally, from his generally unpleasant manners and large appetite, became an intolerable nuisance. This monster Sir Walter Scott thought a wolf or boar; but be this as it may, it was slain by a certain John Somerville, who is said to have acquired the manor of Linton as a reward for his bravery by gift from William the Lion in 1174. It may represent the



Fig. 2. St George and the Dragon on the Tympanum of the Doorway of the Church at Linton, Roxburghshire.

valiant knight, but it has a most suspicious resemblance to George and the Dragon,—the idea, at any rate, seems borrowed from it.

All these representations symbolise the triumph of Good over Evil. The symbol itself was used thousands of years before St George was thought of, as we find from mural paintings and illustrations connected with hieroglyphics that the Egyptians of the Pyramid times figured deities overcoming sin in the form of the "Great Serpent," or sometimes Typhon or the Evil principle. Compare the goddess Serke, whose star-spangled robe typifies her heavenly character, overcoming the serpent (see drawing),

or Horus slaying Typhon, the latter also typifying the triumph of Light over Darkness, or Day (Horus) over Night (Typhon).

I shall now conclude with the remark that this myth applies to three people, two of whom I have noticed ; but the third, my countryman, the redoubtable More of More Hall, who

“ With nothing at all
He slew the Dragon of Wantley,”

has, I am afraid, no monumental slab of the kind. *His* dragon is perhaps the representative of the dragon-flag of the northern pirates, some of whom the valiant More had got the best of.

I also lay before you for the purpose of comparison a very early specimen of Saxon art, which you can place alongside the slabs to show the difference of Saxon and Norman art. It is from the church of Hinton Parva in Dorset, and represents an angel ! The right hand holds a book (the Bible) against the breast, the left plants a cross. To the right of the figure is a butterfly (the Greek $\Psi\chi\eta$ = the soul), intimating apparently that the Bible and cross were the means of salvation. The characteristics of the figure, the holding of the book and cross, correspond curiously with some of the Early Ecclesiastical sculptured stones of Scotland.

II.

NOTES ON NORTH MULL (SECOND COMMUNICATION). BY PROFESSOR DUNS,
D.D., F.S.A. SCOT.

SCULPTURED STONES.

In many of the old graveyards of most parts of the West Highlands one or more examples occur of memorial slabs, popularly known as "Iona Stones." To the inquiry, "Why are they so named?" the ready answer is, "Because they were brought from Iona." All are agreed on this point; but, on pushing inquiry further, great difference of opinion comes out. Some hold they were carried away from the sacred isle without leave asked, at a time when "might was right"; others that they were originally sent to the several districts by the Iona brethren to mark their high sense of the worth, zeal, and devotion to duty of those on whose graves they rest; while others hold that they were simply marketable articles which, with their quaint devices, elaborate tracery, symbolic representation, and varying degree of art-feeling, had been prepared by a section of the Iona brotherhood, who by this craft had their living. This last view was well put by an intelligent man who seemed greatly interested in my rubbings. "They were brought from Iona," he said, "just as we bring big (*i.e.*, worked monumental) stones from Glasgow." As guessing is quite legitimate here and may be useful, I venture another—they may be no more than the fruit of local art. The type is widespread, but the modifications of the type are so many and of such a kind that it is little likely the specimens came from the hands of men limited to one narrow locality. I have examined a great many more stones than those of which rubbings are shown, but I have never found, either in Mull or on the mainland, two precisely alike. If these were local products, not only must the comparatively advanced art-feeling have been very general, but the power also to express it must have been well educated. No doubt each pattern must, as a whole, have been both

head of Loch Linnhe, and in this I found both slabs covered with

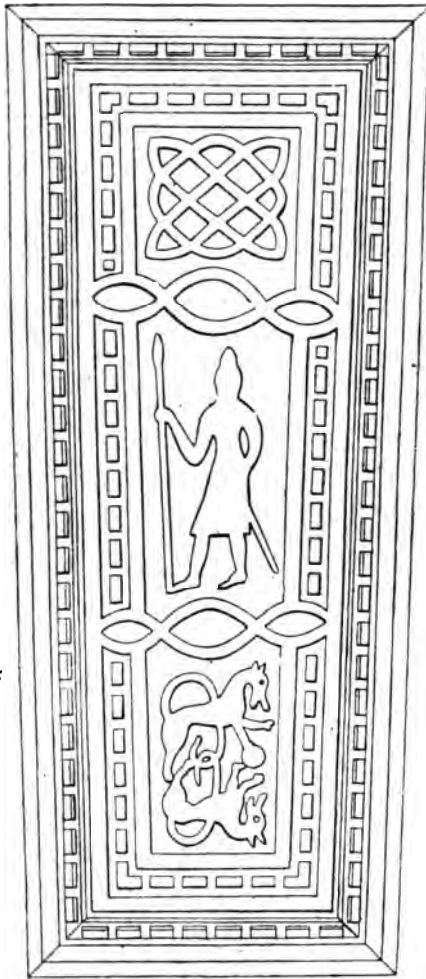


Fig. 1. Recumbent Slab at Dalmally.

foliaceous ornament, and slabs also on which forms associated with purest Celticism are highly expressed. The same remark may be made as to another great route — that, namely, in which the lines converge in the neighbourhood of Dalmally, where the copies of sculptured slabs now shown (figs. 1 and 2) were obtained. But, to resume my queries, Was this foliaceous scroll-work only a foreign introduction, and in no sense a native growth? Is it the fruit of southern influence on northern (in this case, Scandinavian) art? And did these meet when the latter was still rude compared with the Celtic ornamentation of eastern Scotland, though characterised by much that must have marked its earliest stages? (Drawings of early Scandinavian art, pagan and Christian, were exhibited.)

I have found this "Socratic mode" of dealing with these topics per-

sonally profitable and stimulating. It keeps one free from dogmatism. It indicates hesitancy as regards the acceptance of the present *status questionis* as to the origin of the difference between the early decorative stone-work of the east and west of Scotland, and as to their connection or total want of connection. And it concentrates one's own attention on aspects and elements which both call for further illustration, and suggest that we have not yet nearly exhausted the materials, a fuller if not a perfect knowledge of which seems necessary in order to a satisfactory integration. Moreover, there are features in the drawings and rubbings now shown to the Society which fully warrant the more important of these queries:—

1. *Tobermory*.—(1) A slab, 7 feet by 1 foot 10 inches, surrounded by a 3-inch moulding, consisting of three plain bands, lying outside of an inch wide space near the ornamentation, from which it is separated by a narrow plain band. This space is, on the lower part of the slab, ornamented at regular intervals with triple circles, lozenges, and squares. At the bottom of the slab is a panel, 2 feet 2 inches broad, filled with foliaceous work, consisting of four inter-twisting stems with recurved clasping leaves, a pattern not uncommon on the stones in Iona. Above this a

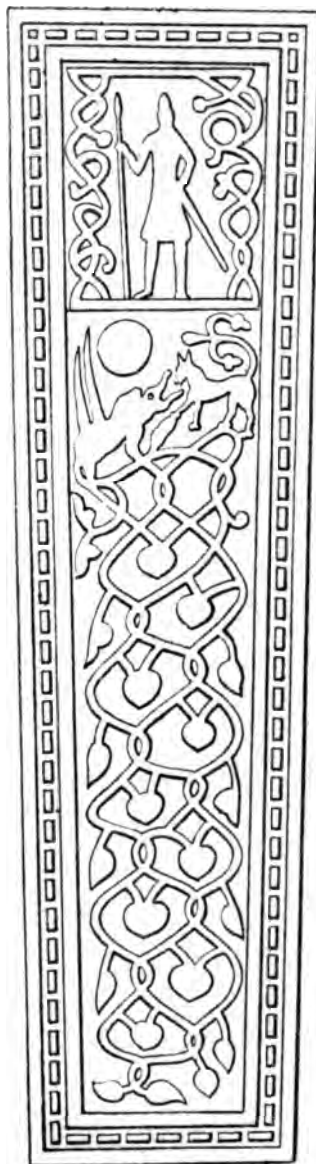


Fig. 2. Recumbent Slab at Dalmally.



Fig. 3. Recumbent Slab at
Tobermory.

4-inch wide panel runs across the stone, bearing the figure of a single-edged comb, and of two circular objects, which, if intended for mirrors, are unlike any I have seen. Higher up is another panel, $17\frac{1}{2}$ inches by 17, filled also with foliaceous work, arranged so as to produce a very graceful effect. In the centre are two concentric circles, the diameter of the outer being $3\frac{1}{8}$ inches, and that of the inner 2 inches. Towards these eight floriated rods, with sub-spatulate points, proceed from near the edge of the panel, at regular intervals, and pass through the circumference of both circles, but do not proceed to the centre, which is left free. These rods are united by the intertwisting of a single leaf of one with a single leaf of another throughout the eight, these leaves presenting to each other a concave edge, while the rest are left free. The uppermost panel is 2 feet 3 inches by 1 foot 4 inches, and consists of a double Gothic canopy, the niches containing two figures in the attitude of prayer (fig. 3). The centre pillar bears a pear-shaped finial, and the pointed arches of the niches are terminated by the *fleur de lis*. This slab has had an inscription in old English characters, which, however, is so much defaced that only the words ANNO DOMINI can

be made distinctly out. (2) In the same churchyard there is a fragment of a slab, bearing a square pattern of floriated work. In the middle of this square are two concentric circles, the diameter of the outer being $4\frac{1}{2}$ inches, that of the inner 1 inch. These are surrounded by eight floriated rods placed at equal distances, and arranged around the edge of the outer circle in such a manner that, by a series of single twists, all the rods are united. The effect is pretty, though simple.

2. *Kilmore*.—This beautiful stone is a little more than 5 feet 4 inches long by $11\frac{1}{2}$ inches at the bottom and 10 inches at the top. The graceful head-piece is 13 inches at its widest part. The ornamentation occurs on both sides, showing that the slab was originally an upright. Its socket was sought for in vain. Taking the side on which there is a representation of the crucifixion as the *obverse*, after copying it I managed with a strong stick to turn the stone and found the *reverse*, prettily sculptured also. Above it was covered with moss, and below it rested on fine loam. The ornamentation, with the exception of the cross, had thus been well protected, and is in a high state of preservation, the lines being sharp and definite. The foliaceous work on the obverse consists of one stem, the ends of which are free at the figures,¹ held to represent Mary and John, on each side of the cross (fig. 4). The two parts then pass down the stone, throwing off branching tendrils outside, and filling the interspaces with twisted branches, terminating in small recurved leaves. At the bottom they end in a knot, resembling the figure eight, in a horizontal position. Below this knot is the shears ornament lying in the same way, having on each side the representation of an article, 7 inches long, with scissor-like blade at the end, and below the blade a loop. Having been asked to address the Tobermory Young Men's Improvement Association, it occurred to me that I might get some information, if not ~~any~~^{none}, of interest, by speaking to them of the antiquities of the ~~island~~. This I did,² and when showing some rubbings from sculptured ~~and~~ if any one could explain these looped figures? A day or

¹ Not shown in the cut.

Alexander Allan, Esq. of Aros, in the Chair.



Fig. 4. Cross at Kilmore, Mull.

two after a friend who was present received the following note from an intelligent Celt:—"You spoke of the figure to the right and near the bottom of the impression, which the doctor did not understand. I think I have discovered what it represents, viz., the cuigeal used for spinning thread of this shape [a figure is given of one he had seen]. The lint or wool is fastened to the top, and the bottom is fastened by the waist belt. The left hand is brought across outside the staff, when the right propelled the twister." Other friends were careful to explain to me the old *cuigeal is fearsail*—distaff and spindle—and promised to get me examples, but do not seem to have succeeded. At the top of the slab a small Latin cross is represented springing from the middle of the transome of the large cross.

The ends of the winding stem on the reverse start from a 5-inch diameter circle, to which they are fastened by two short unattached tendrils. A small quatrefoil is in the centre of this circle, and a trefoil at each side of the median line of the stone, just a little above the circle. Others occur in this line in interspaces formed by the twisting of the stem, whose ends are free at the top, where they curve gracefully over each other. The ornamentation on both sides might have been suggested by vetches with branching tendrils, examples of which are at present met with in the neighbourhood. The head-piece of this stone is unlike anything I have seen before. It is formed by two protracted ovals of unequal length, one being 20 inches by 2 inches, the other 10 inches by 2½ inches. The centre of the former rises from the middle of the stone, near the leaf work, into a device, 6 inches by 4 inches at its widest part, assumes after a little a curve, the convex being distal to the stone, and passes to the edges where it presents a blunted oval, projecting 2 inches at the sides. The shortest lies across this, curved upwards. Each of the ovals consists of two free endless bands, those of the one oval interlacing with those of the other at the places where they touch, and producing an exceedingly simple yet pleasing effect.

3. *Kilninian*.—(1) A slab, 6 feet by 16 inches. At the top a panel with a large circular cross of interlaced work surrounded with four smaller

crosses of the same, from which the running pattern of four intertwisted stems rises, which nearly fills the rest of the slab. The interspaces formed by the intertwisting are filled with a conventional leaf pattern, while on the outside of the stem, at the place of twisting, are leaves curving towards the edge of the stone. At the bottom is the so-called tallet, and at right angles to it the shears. (2) In the same churchyard is another slab ornamented with four intertwisted stems, each sending off near the junction tendrils which intertwist, and four spaces filled with foliage. Both have a strong resemblance to an Iona slab figured by Drummond (plate xvi.), though the foliaceous work of both present considerable differences in detail. This slab is much defaced at the bottom, but near it a well-marked small Latin cross can be made out.

4. *Kilinailean*.—This old graveyard is situated on the northern slope of Glen Aros, about half a mile from the highway between Tobermory and Salen, and a little less from the River Aros. The spot is wild and lonely, and the view from it exceedingly grand. Indeed, this grandeur and extent of view is characteristic of all the burial-places to which I have referred. (1) Slab, 6 feet by $1\frac{1}{2}$ foot. Four intertwisted running stems, which rise from animal forms too much defaced to be made out. In the lower part, branchlets lie both inside and outside of the ovals formed by the intertwisting. This foliaceous work fills the stone, with the exception of a panel 1 foot square at the top, which is filled with five circular crosses of interlaced work, a large one in the centre, and a small one at each corner. The main stems of the lower part of the ornament rise and form this square, throwing off leafy branchlets at the spaces between the small circles. The pattern is rare and pretty. The slab is surrounded with a double roll moulding, a row of the nail-head ornament lying between. The figure of a sword lies in the median line of the foliaceous work. (2) Fragment of a slab, 23 inches by 11 inches. Ornament, a pretty undulating stem with semicircular branchlets, which terminate in a distinctly marked trefoil. Part of the blade of a sword in the median line of the stone, not touched by the ornament. I have been struck with the absence of the sword from the great majority of the

North Mull slabs. They contrast strongly in this respect with those on the mainland. Kilinailean is the only churchyard in which I found them. (3) A small monumental slab, with the figure of a child's skull exceedingly well outlined.

5. *Pennygown*, near the Sound of Mull, at the opening of Glen Forsa. (1) An upright slab, 3 feet 2 inches by 1 foot 2 inches at bottom and 1 foot at the top, surrounded with flat moulding, running pattern of foliaceous work on one stem, which is so bent as to form subcircular spaces, inside of which are three trifoliate branchlets, the form of the centre leaf being pointed oblong, that of the other two rounded. The ends of the twigs outside the circle vary, being either like those inside or having one or two oblong leaves. The stem proceeds from the tail of a griffin at the bottom of the slab. This has a strong resemblance to the Iona stone figured by Drummond (plate xxxvi.), and bearing the date 1489 A.D. There is, however, the usual variations in the ornament. On the other side of this slab there is a figure of the Virgin and Child, standing in a niche-like space formed by the naked stem, which runs into a subcircular space above the figure, having branchlets so disposed inside as to suggest the St Catherine's wheel. The stone terminates in blunted ovals at each side, with a slight rise between them. (2) A slab 5 feet by 13½ inches, surrounded by a raised band of nail-head moulding. The foliaceous work is much defaced, but enough can be seen to show that it had been unusually elaborate. The shears ornament lies across the stone at the bottom.

6. *Cladth Mhuire, Calgary*.—A slab, 16 inches by 5½ inches, with a cross of different shape and size on each side—modifications of the Latin cross.

Looking, then, at the sculpturing of the slabs to which the attention of the Society has been called, one or two brief remarks may be made in conclusion. (1) Apart altogether from the quality of the art which they illustrate, the fact of its prevalence for a considerable number of years in the West Highlands and Islands of Scotland suggests the presence in these districts throughout those years of an art-feeling not perhaps suffi-

ciently appreciated. If, as is the case, the style has long passed away, can we assign any reason for this? Or has a style of popular monumental decoration come in such as to warrant the conclusion that an artistic taste of equal merit has taken the place of the lost style? It seems to me that the answers to both queries must be negative. (2) The occurrence in the same area of the characteristic elements of the pure alongside of the so-called debased type may, perhaps, be accounted for in two ways—(a) Two original growths, of home or of foreign origin, may have met in the area, and of purpose been associated by the workmen in order to one definite effect. Or (b) an early native product might gradually assume forms of expression so widely divergent from the original as to retain only slight hints of the root from which it had sprung. To be able to point to the occurrence of the same forms in other areas near or remote has, of course, little force, because identical tendencies may work in countries widely remote, and general resemblances will result. In either case, however, the question of improvement or of degradation would remain to be argued. If so, and supposing there were no broken links in the chain, the weight of the inference would depend on the quality of the last link. Would it be outside the limits of all likelihood even to suppose that such ornamentation as that of the Kilmore slab might, at least, suggest a progress from certain Celtic elements up to the foliaceous ornament of the early Gothic? But be this as it may, I am sure it falls in with Ruskin's *dictum*—"All good art has the capacity of pleasing, if people will attend to it." (3) Another feature of the art on these slabs has greatly interested me. I refer to the very frequent divergence from symmetrical pattern which they exhibit, not only without offence to the eye, but evidently with the view of satisfying it, and suggesting what scope there is, even in work of this kind, for free and unconventional treatment. "Nature abhors equality and similitude, just as much as foolish men love them" (Ruskin). And there can be no doubt, the artist who worked with diverging spirals practised the same liberty in order to a corresponding result (Anderson's *Scottish Early Celtic Art*, London, 1878, p. 116, the "Shandwick Stone"). (4) It

whole, not absolutely, a safe guide for inferences touching degradation when we find types and instances burdened with an element which outrages taste. As, for example, when the tails of nondescript animals lengthen into stems 4 or 5 feet long, or expand into leaves from whose apex stems proceed. But while this is so, I think a good plea might be urged in favour of advance, even in connection with some subdued instances of this, just as the same might be in connection with the treatment of diverging spirals, by making a leaf supersede the characteristic "trumpet." I hazard the remark, feeling, however, the uncertainty of the ground!

In the foregoing notes it has not been forgotten that one would have to go much farther afield, than the very limited area now before us, for facts to warrant trustworthy generalisations touching the points now referred to. Besides, only a very small part of a very large subject has been before us, and even that in fragments. Perhaps it should not even have been touched from a *quasi* speculative point of view. My apology is, that having made the notes of facts in which I have long taken much interest, it seemed expedient to try to indicate the thoughts which, to me, seem to underlie them.

CHAPELS.

In all the churchyards where rubbings were made, the remains of small chapels occur. That of Pennygown is in the best state of preservation. The walls are still standing, and present an exceedingly rude appearance. Though both lime and "worked" stones have been employed in the building, the walls show far less art than do those of some of the forts in which neither is found. Inside measurement, 39 feet 9½ inches by 18 feet. The arched doorway, which is in the north-west side, is 6 feet 5 inches in height, with simple roll moulding. At the spring of the arch outside it is 4 feet 5 inches, with a splay inside of 1 foot 3 inches. The door itself seems to have been fastened on the inside, where three holes occur in one side. There are, however, no traces of corresponding holes on the other. The three windows are round-headed lancet, com-

paratively small and rude, but so set as to present an effective appearance outside. The chapels in the other churchyards have been about the same size.

CRANNOG.

The discovery of a crannog on the occasion of draining *Loch na Meal* (Loch of the Deer) for agricultural purposes is described by G. F. Campbell, Esq., in a letter to the late Dr John Stuart, printed in the eighth volume of the Society's *Proceedings*. In addition to the information communicated by Mr Campbell, I was told by an intelligent man that pieces of iron slag occurred near the burn that now drains the former site of the lake. But on visiting the place I found that fragments of heavy, compact, dark-blue trap, with irregularly disseminated large patches of felspar, had been mistaken for slag. The carbonic acid in the atmosphere acting on and removing the lime in the felspar, gave to the trap the slaggy appearance seen in the specimens now shown. I was anxious also to trace the fine canoe formed from the solid, to which reference is made by Mr Campbell, and of which I heard a good deal in the district, but the search was in vain. Its last appearance was on the pier at Tobermory, near which it was sunk in the water to keep it from the decay which had set in when exposed. It is believed by some to have drifted seaward, and by others to be still near at hand. Any how, it is as much lost to us as the Spanish gold in the lockers of the "Florida," sunk in the same bay. Not unlikely they may be found by some after generation lying side by side, and the Armada men be credited with the latest use of this sort of vessel!

III.

ON THE CRYSTAL SPRING CAVERN, COLONSAY (SECOND COMMUNICATION).
By SYMINGTON GRIEVE, F.S.A. Scot.

In my first paper on this cave, read before the Society in June 1880, I stated that on a future occasion I should consider the formation of the cave, its uses, and its inhabitants.

The present inhabitants of the island know nothing about this cave. Its present entrance is said to have been accidentally discovered a little more than a century ago, and the recentness of this discovery is indicated by the name given to it—"The New Cave."

The Formation of the Cavern.—There can be little doubt that at one time the islands off the west coast of Scotland formed part of the mainland, and that it was also connected with the European continent. The shallowness of the intervening seas, and the distribution of the flora and fauna, which both appear to have come from the east across the continent of Europe, confirm this view.

The ancient sea-beaches, which are well defined along the west of Colonsay, are perhaps best seen at *Aoinean na Muc*,¹ the edge of which is at least 150 feet above sea-level. There is no doubt that at one time the *Aoinean* extended much farther seaward than the point at which it now ends in a perpendicular cliff.

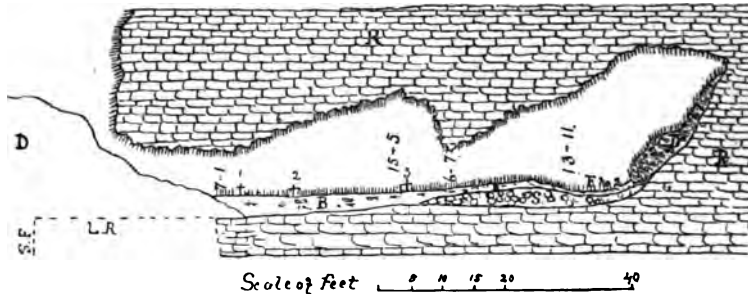
There are several *Aoineans* at lower levels, especially to the northward, which represent the sea-shore at later periods. The cliffs that form the south-western coast of Kiloran Bay, and in which the Crystal Spring Cavern is situated, form the north-eastern boundary line of the *Aoinean* of Urugaig. When this "step" was being formed, the cliff, on the face of which the caves of Kiloran Bay are found, was under the sea. The Dove's Cave, the loftiest in the island, has a height of 63 feet at the

¹ "The Pigs' Paradise"—the true meaning of *Aoinean*, however, is a step between the higher and the lower cliffs, and this is exactly what we have here.

entrance, and is situated at a part of the cliff where it is 74 feet high. Inside its entrance the surface of the rock is worn smooth to within 5 feet of the roof, the part above bearing indication that the roof has partly fallen in. The breadth is 22 feet 11 inches at the entrance, varying from 8 to 12 feet for about 90 feet inwards, and from that point for a distance of 120 feet contracting to from 7 to 4 feet in height and 3 to 4 feet in breadth. This cave has been formed along the line of a vein of hard crystalline limestone which has been eroded by the sea. Its erosion to a lower level is still going on through the reef extending seawards from the present entrance.

The formation of the Crystal Spring Cavern has been due to the same causes. The height of the roof of its entrance above high water is about

Chamber No. 1. Crystal Spring Cavern, Colonsay.



+ Denotes a place where sinking in the cave floor has been made, also its number.

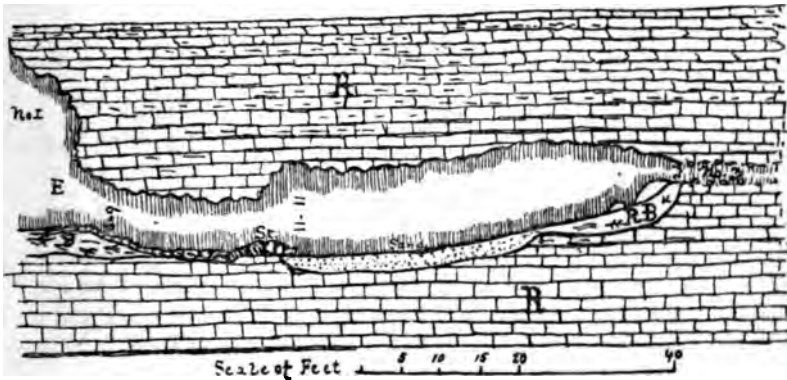
- S, F, + } Supposed face of cliff below debris outside cave entrance.
- L, R, } Supposed line of rock.
- E No. 2, } Marks entrance to No. 2 Chamber.
- B, } Means bones found in floor strata.
- D, } „ debris of fallen rock.
- R, } „ rock.
- S, } „ rolled stones, such as are used for heaters.

40 feet, so that we may conclude that 20 feet of the upper part of the Dove's Cave had been formed before the formation of the Crystal Spring

Cavern began; that is to say, if the portico of which I wrote in the previous paper was no higher than the present entrance.

Further excavations have ascertained that the present level of the rock floor underneath the deposit of the outer or No. 1 Chamber of the cavern is about 20 feet above high water. I account for this by the circumstance of the masses of rock which formed the fallen portico having become a barrier to the waves when the sea was at the level of the floor of this chamber, and thus preventing the further excavation of the floor to a lower level, as would have been the case had the sea had access to it.

Chamber No. 2. Crystal Spring Cavern, Colonsay.

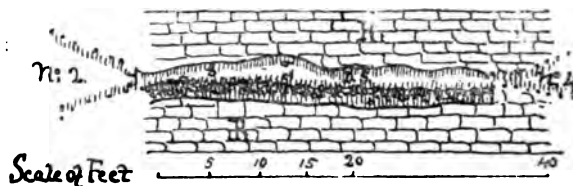


- No. 1, Chamber No. 1 of cave.
- E, Entrance to No. 2 Chamber.
- R, B, Denotes where bones were found in floor strata deposits now removed.
- B, Bones.
- St, Stalagmite.
- Sand, Sand and gravel.
- R, Rock.
- No. 3, Commencement of No. 3 Chamber.

One feature of the cave is that the outer part of the present floor of No. 2 Chamber is about 5 feet below the level of No. 1 Chamber, while that of No. 3 Chamber is again about the same level as the floor of No. 1.

This depression is easily accounted for by the fact that in this cave the limestone veins have an undulating course. There is also evidence that the limestone has been washed out of some of the fissures by infiltration since the sea ceased to wash into the cave.

Chamber No. 3. Crystal Spring Cave, Colonsay.



- G, Underneath where this letter is placed, water-worn stones form the floor.
D, S, Débris and stalagmite mixed forming breccia. Underneath DS.
No. 2, Chamber No. 2.
No. 4, Continuation of cave unexplored.
R, Rock.

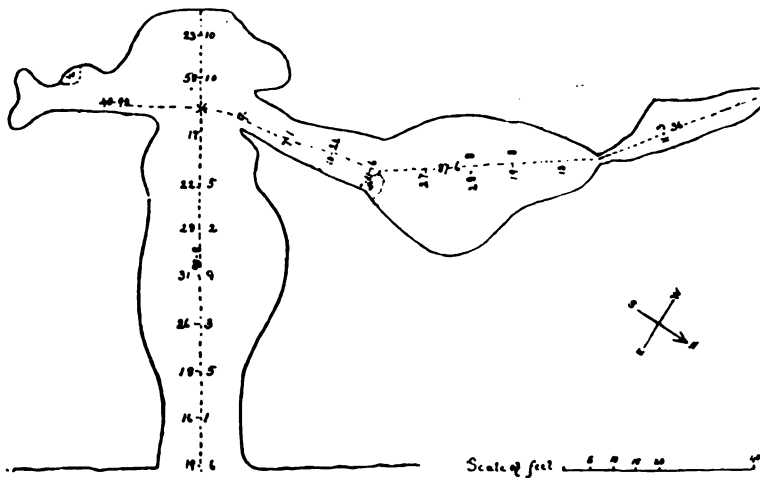
The foregoing is a brief notice of the changes which have taken place at this part of the west of Colonsay, so far as the relations of land and sea are concerned. After the obstruction was formed which closed the Crystal Spring Cavern, it is probable that the masses of fallen rock were gradually undermined by the wash of the waves, so as to uncover the opening and reveal the existence of the cave to the inhabitants, who would not be slow to avail themselves of its facilities for shelter and concealment.

Occupation of the Cave.—The excavations at the shell mound named *Caisteal-nan-Gilleán*, in Oronsay, have led to the conclusion that at the time the outer chamber of the cave was first occupied by man, both the islands had been inhabited for a considerable time. That the population was sparse we may well believe, for we know from the contents of the mound, and the cave, that the red deer abounded, along with the martin, and possibly the wild boar. There was then more wood upon Colonsay than

at present, and it appears probable that the red deer had long ceased to live in its wild state before the first occupation of the islands by the Norwegians.

There are some striking similarities and as great differences between the deposits of the shell mound and the crystal spring cavern. Among the similarities is the conspicuous absence among the remains of weapons of

Ground Plan of the Crystal Spring Cavern, Colonsay.



W, Marks the well from which we give the cave its name.

S, „ stalagmite in Chamber No. 2.

The numbers indicate feet and inches.

war, and the presence at the mound of evidence of an industrious hunters or fisher population. There are also all through the deposits remains of animals, which are only found in the lowest strata of the deposits of the cave floor. At the mound there is so little charcoal around the hearths found among the earliest deposits, that it gives one the impression that there has been want of fuel, while at those parts of the cave where fires have been lit, we find evidence of long continued burning in the abundance of charcoal.

The outer or No. 1 Chamber was the place where the early inhabitants lighted their fires and where they cooked and ate their food, and it is probable that here they also dwelt. If more than one succeeding race occupied the cave they always confined themselves to the same spaces on which they burned their fires, as there are various parts of the cave floor covered with the round water-worn stones which lie quite bare, but where the kitchen middens exist the deposits vary in thickness from a mere coating of the surface to three feet.

The No. 2 Chamber forms one of the most remarkable features of the cave, and the depression in the middle of it has been at one time filled with water, and at present there is still a good deal standing in pools. At the inner part of the chamber, where the floor rises until we approach the entrance to No. 3 Chamber, we found above what has been the level of the water, deposits that had been formed by the human inhabitants of the cave.

As the space which they could occupy here is very circumscribed, there must have been some special cause for the taking up their abode within such narrow limits, when the outer chamber afforded superior accommodation. The deposits here are similar to those in other parts of the cave, but have now been almost entirely removed. We found remains of the horse, ox, sheep, and one bird bone, along with a few fragments of bones as yet unidentified.

After a careful examination, we have come to the conclusion that this must have been a place of concealment to which the cave dwellers could retire when attacked, and from which, if necessary, they could crawl into No. 3 Chamber. As even the entrance to No. 2 Chamber is not seen when the cave is first entered, they would be able to retreat unobserved, and their assailants would certainly think twice before they pursued them through water of unknown depth, and extent, into the recesses of the cave.

The investigations we have made regarding the human deposits show them to be comparatively local, and therefore much more restricted in extent than we at first supposed; but a reference to the plans will show their distribution.

In only the lowest or earliest deposits have we found the remains of the red deer and pig, or more probably the wild boar, as if it had been the domestic pig we should naturally have expected to have found it in the higher or later deposits; but its absence there is conspicuous. This leads to the conclusion that it had become extinct on the islands, as we have found its remains among the deposits of the shell mound of Caisteal-nan-Gilleán at Oronsay.

One of the rib bones from that place had been broken and afterwards united, and such an injury would very probably be received in the chase. It appears that such an authority as Professor Steenstrup¹ does not believe that the domestic hog is represented in the Danish shell mounds. We have no doubt that the shell mounds to which he refers were formed long previous to that on Oronsay, but we must remember that probably at that time Colonsay and Oronsay were uninhabited by men, and that the wild boar and other wild animals lived on these islands unknown and unmolested.

The red deer remains are plentiful in the lower deposits of Caisteal-nan-Gilleán, but gradually become rarer as we ascend to the upper layers. We have found a few fragments of its bones in the uppermost strata of the shells underneath the blown sand which covered the mound. But at the Crystal Spring Cavern we have only discovered a single fragment of an antler, and that among the lowest or earliest deposits of the cave. This naturally leads to the conclusion that the shell mound on Oronsay was formed long previously to the human occupation of the Crystal Spring Cavern, and that the red deer became extinct on the island shortly after the time that men first inhabited the cave. There is also another reason for considering the shell mound to be more ancient than the deposits in the cave, and that is the presence of remains of the ox only in the middle and upper deposits of the cave floor (as far as we have yet discovered), and the entire absence of such remains in any of the deposits at the shell mound.

¹ *Natural History Review*, 1861, p. 497.

It does not appear from the remains in the cave how these early Colonsay men succeeded in killing such animals as the red deer and wild boar. But as beautifully made harpoons or spears of bone have been found at Caisteal-nan-Gilleann among the lowest deposits, we may be assured that the cave men living at a much later period would have better weapons than the earlier inhabitants, though we have not as yet been so fortunate as to find any.

There is an incident mentioned in the *Life of St Columba* by Adamnan,¹ which shows that the wild boar was met with in the island of Skye towards the end of the sixth century, so it is not more than we might expect to find it on Colonsay at an earlier period. The animal existed on the mainland until a much later time, but was probably extinct previous to the reign of Charles I. The red deer has left its remains on almost every islet around our shores, especially in the west of Scotland. Its bones and antlers being hard and close in structure, formed suitable materials from which the ancient inhabitants made implements, and we find them largely used by the men who formed the shell mound in Oronsay. The only remains of the animal that we have found in the cave is the fragment of an antler, which bears marks of having been cut into or hacked with an instrument with a very keen edge. The cleanness of the cutting almost forces upon any one who looks at it the conviction that it has been done by metal.

The ox bones, which are confined to the middle and upper strata of the cave floor, as far as yet noticed, are of great interest, as we have among them remains of the full grown, the middle aged animal, and the calf; but, as mentioned in our previous paper, the bones of the younger animals predominate. Many of the bones are marked with cuts, but others have been broken into fragments, probably with stones, particularly the marrow bones, evidently to get as much nutriment out of them as possible when boiled. In the No. 2 Chamber, and not far from its entrance, is a mass of stalagmite, which has been formed in water, as its upper part

¹ *Life of St Columba*, vol. x. : *Historians of Scotland*, p. 55, book ii. chap. xxvii.

overlaps. It is the finest stalagmite in either the No. 1 or No. 2 Chambers, and is much whiter than that found elsewhere on the floors of these chambers. It has evidently been washed out of some crevices in the side of the cave by infiltration, and probably has been formed more rapidly than some of the other stalagmite deposits, owing to the abundance of lime in the rock at this point. Its formation has been a very slow process, for we found upon its surface ox bones very slightly imbedded, that have been to all appearance deposited there when the cave was inhabited. As far as we have been able to discover, none of the bones that have been enclosed by it are much below the surface, and they appear all to belong to the ox.

The horse is represented by its bones entirely in the upper strata, and was probably only used as food during the later period of the occupation of the cave. As in the case of the ox, we found the bones of both young and old animals, but those of the young are most plentiful.

The sheep has left evidence of its use in the whole period of occupancy by the presence of its remains in all the deposits from the lowest to the highest.

We have nothing to say about the remains of the birds, fish, and mollusca, beyond what we stated in our previous communication. As it may be of interest, we append the numbers of *additional bones* of each of the mammalia we have recovered during the later excavations—

Ox,	43 bones.	Horse,	8 bones.
Sheep,	43 „	Pig or wild boar,	3 „
Red deer,	1 „	Fragments and uncertain,	79 „

Besides these remains we observed the following objects:—

Some ferruginous material found in an oblong piece, but which crumbled to small fragments and dust on being lifted. It has the appearance of being oxidised iron, and one fragment at least shows indications of lamination, which, if the case, would lead us to suppose that the iron had been wrought.

Several fragments of charcoal, examined by Mr J. M. Macfarlane, D.Sc., Assistant to the Professor of Botany in the University of Edinburgh,

who states that the structure of the wood is destroyed through the burning, and it is difficult to identify it with absolute certainty; but he believes it to be the product of burning the wood of the goat willow (*Salix caprea*, L.) In support of the above opinion, we may mention that the willow was used in the Hebrides for making bridles, ropes, and tackle of every variety. We have also found immense stumps of this tree on the shores of Loch Fada.

Bone needle (broken). This implement has been broken straight across, and we have only got the upper end with the eye-hole.

Several fractured stones that have been split with heat, and which were found beside the ancient hearths. They have most likely been used as heaters.

Specimens of stalactite and stalagmite from various parts of the cave.

Small portion of floor of No. 2 Chamber, showing gravel cemented together by stalagmite.

Large mass of stalagmite from No. 1 Chamber, with bones and what appears to be a portion of an iron instrument imbedded in it.

Several pieces of stalagmite that fit into each other, and were broken off the large mass of stalagmite on the floor of No. 2 Chamber. These pieces show the overlapping of the edge of the slab.

We cannot sufficiently express our thanks to Dr R. H. Traquair, F.R.S., for his kindness in identifying the animal remains. The want of proper sets of bones of the different animals likely to be found in our ancient kitchen middens has greatly increased his labour. But we are informed that, fully appreciating the difficulties that occur to students, he intends shortly to have full sets of bones belonging to each of the commoner animals prepared and exhibited in the Museum of Science and Art, where they will be accessible to all who wish to identify such remains as may come into their possession.

The Inhabitants of the Cave.—The strata of the floor, so far as yet explored, point to two conclusions,—either that the earliest inhabitants were a different race, with food and habits unlike their successors, or that the same race changed their food and habits considerably with altered circumstances.

History and tradition alike testify to the power of the Scandinavian influence in the Western Isles, and we may be sure that the Colonsay

men of that time would adopt the habits, customs, and even the faith of their masters, as well as accept their rule.

It has been shown that the red deer and the pig, or more probably the wild boar, are both represented in the shell mound of Caisteal-nan-Gilleann. The remains of the red deer are plentiful in its lower strata, and decrease in number as we ascend to the higher or later deposits. In the cave it is only represented by one fragment of an antler. The pig is represented by several bones in the strata of the shell mound, but appears only in the lowest deposit of the cave. The sheep does not manifest its presence in the shell mound except by one bone, near the upper surface of the deposit, but its bones are found all through the cave deposits. The ox (*Bos longifrons*) first shows evidence of its presence about the middle of the deposits on the cave floor, but its remains were not found in any of the strata of the shell mound. The horse is represented only in the upper deposits of the cave and on the surface of the floor. Horse-flesh was a common article of food in early times, but it was also used by the Norsemen in their heathen sacrifices, and was proscribed by the Christians, and thus ceased to be used about the year 1000 A.D. The bones of this animal found in the upper strata of the floor may have been the remains of the food of the regular inhabitants of the cave, while the secret eating of heathen food may perhaps account for the numbers of horse bones scattered over the surface of the floor.

If the deposits at the Crystal Spring Cavern are as ancient as those of the shell mound of Caisteal-nan-Gilleann, we would naturally expect to find in the strata of the floor remains of the same mammalia that we found in the strata of the mound. But this is what we do not find; and besides those already mentioned we have present at the mound remains of the marten (*Martes foina*, L.), Otter (*Lutra vulgaris*, Erxl.), common seal (*Phoca vitulina*, L.), grey seal (*Phoca gryphus*), rat (*Mus decumanus*, Pall., or *rattus*, L.), rabbit (*Lepus cuniculus*, L.), also a large cetacean, probably the porpoise or fin-whale, all of which are absent from the

first of these animals was never heard of on the islands by any

living inhabitant either by direct knowledge or tradition, and has doubtless been long extinct;¹ and though the other animals, with the exception of the black rat (if it be that species whose remains we have found), and perhaps the otter, are yet found on or frequent the island, still they do not seem to have been used as food by the dwellers in the cave, for we do not find any traces of their remains. The seals at the present time frequent Oronsay and the southern part of Colonsay, but do not make the northern part of the island so much their home. If this was also the case in earlier times, it may account for the presence of their remains at the mound and absence from the cave. Besides, the men of the shell mound were evidently a race of huntsmen and fishermen, which does not appear to have been the case to the same extent with the inhabitants of the cave.

The rabbit remains found at the shell mound are to all appearance recent, and were found in old burrows of that animal, of which there were many. We found the remains of the great auk (*Alca impennis*, L.), razorbill (*Alca torda*, L.), guillemot (*Uria troile*, L. or *grylle*, L.), and of several other birds, at Caisteal-nan-Gilleann, which are not represented by any remains we have yet found in the cave. It is well to bear in mind that the deposits may yet yield remains that we have not found; it is also to be remembered that, for every bone recovered, great numbers must have decayed and entirely disappeared. It is rather matter for surprise that so many have been preserved.

Of implements we have found a portion of only one, and that is the head of a bone needle. In the course of excavating we discovered near the surface a small piece of red material, evidently oxidised iron. It is now in a fragmentary state, but some of the broken pieces show signs of lamination, which leads us to suppose it has been wrought metal, and may be the remains of a small iron ornament or implement.

There is also a large piece of oxidised iron imbedded in the largest

¹ Among the first remains obtained from the cave was a claw which may have belonged to the marten, but could not be identified with certainty. It was found in the lowest deposits.

mass of breccia exhibited and referred to in our previous paper. This iron also shows signs of lamination, and may have been an implement.

When we first examined the cave, the remains we obtained on the surface were those of the horse and ox, the bones of which had been broken to obtain the marrow, which seems certain evidence that the flesh had been used as food. Some of the bones showed marks of human implements, which proves that they had been handled by man.

We felt, however, that we must not be satisfied with this evidence, as there might be a possibility of the horse and ox having been used as food by some persons inhabiting the cave during the last hundred years. The inquiries we instituted satisfied us that the bones must belong to a period long before the rediscovery of the cave. Men now living, approaching a hundred years of age, scouted the idea, and said it was impossible, as no islander would eat horse-flesh; and though several of them had been born shortly after the cave had been rediscovered, they had never heard even a whisper of tradition that horse-flesh had ever been used as food.

The inaccessibility of the cave renders it quite improbable that any stray horse or ox could ever get into it. If such could have happened, and the animal died there, we should naturally expect to find its bones all in one place; but instead of that we found the bones isolated at different parts of the cave, and belonging to not one, but a number of animals.

There are only three caves on Colonsay that we know of where the inhabitants have dwelt during recent times. These are the Bonnie and M'Fie Caves on the south-west side, and a cave with a Gaelic name (which we spell phonetically as Onan-a-pengernan) on the north-east side of Kiloran Bay. The other caves are in most parts too damp to be now used as dwelling-places, and are dark, while the above-mentioned are comparatively light and airy. Onan-a-pengernan can hardly be called a cave, being merely a shallow cavity in the overhanging cliff.

The dark caves, especially those with kitchen middens, are looked upon by the more ignorant of the islanders as places to be avoided, and we have twice seen men positively frightened to enter them.

In the plans which illustrate this paper (pp. 352-355), the strata of the unexplored portions of the cave floor have been figured according to the knowledge derived from carefully probing them, and making several small test sinkings. If definite data, that would enable us to account with certainty for all the questions that are raised in connection with the study of this cave, are still awaiting, it is to be hoped that this may only act as a stimulus to archæologists, to fresh effort to elucidate all the problems that attach to the history, habits, and customs of those who inhabited the caves of ancient Alban.

IV.

NOTES ON THE EARLY HISTORY OF THE PARISH OF COLINTON. BY
THE REV. WILLIAM LOCKHART, A.M., F.S.A. Scot., MINISTER OF THE
PARISH.

In or about the year 1095 (perhaps a few years earlier, certainly not more than one or two later), when the kingdom of Scotland had been extended to both sides of the River and Firth of Forth, and when the old Celtic Church was giving place to a new state of things under Malcolm III. and his successors, what appears to be now the parish of Colinton received its foundation. This was done by Ethelred,—second son of Malcolm III. (Canmore) and his Saxon Queen Margaret,—presenting to the Church of the Holy Trinity at Dunfermline, which had shortly before this been founded by his pious mother, certain gifts that were then denominated by the name of “Hale.”¹ The object which this Scottish Prince had in view in doing this was obviously twofold, viz.—first, to enrich the royal church at Dunfermline; and secondly, to secure for the people living in the district of Hale the regular administration of religious ordinances by clergy belonging to and resident at the parent church. The

¹ The other forms of the word in the *Regist. de Dunf.* are Hal. (a contraction), Hala, Hales, Halis, Halys, Heallis. The modern form of the word is Hailes, and the name of the church and parish for many years was Hailes or Collington, spelled variously Collingtoun, Colington, or Colinton.

record of this gift is to be found in an early part of the very first charter of the chartulary of Dunfermline Abbey, now in the Advocate's Library, Edinburgh, and printed by the Bannatyne Club. The deed in question is by David I., the youngest brother of Ethelred, and a monarch who, as is well known, enriched Scotland with many religious institutions. The statement of the grant is in the following terms, viz. :—"Dona Ethelredi fratris mei Hale,"¹ and it is confirmed, sometimes with slight variations, in other charters by David, as well as in those of successive kings down to the reign of Alexander III.² Besides this, these lands, and the church connected with them, are frequently referred to in the same chartulary in confirmations by bishops and chapters, in the bulls of popes, and in settlements and agreements as to teinds and lands, down to and even beyond the period of the Reformation in the middle and towards the end of the sixteenth century.³

In inquiring into the origin and early history of a civil and ecclesiastical district in close proximity to the metropolis of Scotland, curiosity, first of all, naturally turns to the founder. And here it has to be stated that little is known of Ethelred, as he appears to have died young, although that little is not without interest. His name was Saxon, and he evidently received it after ancestors of his royal mother, for there were three kings of this name in the Saxon heptarchy, and two in the united Saxon kingdom. In the month of November 1093, he had to communicate to his mother, then in Edinburgh Castle, the painful tidings of the death of his

¹ *Regist. de Dunf.*, p. 3, Confirmacio Regis David, lines 9 and 10.

² *Regist. de Dunf.*, p. 5, Reg. Dav.; p. 19, Reg. Malc.; p. 28, Reg. Wil.; p. 40, Reg. Alex. II.; p. 46, Reg. Alex. III.

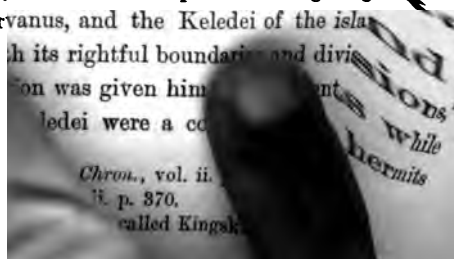
³ *Regist. de Dunf.*, Ep. pages 56, 57, 59, 62, 63, and 66, cap. 81, ag. 135, 136, 137, and 147. Pont. Rom. Alexander IV., p. 152. Pont. Rom. Lucius, 157. Pont. Rom. Hon., 167. Pont. Rom. Gregory (De Villa de Halis) p. 173. Pont. Rom. Greg. IX., Eccle. de Hal., p. 175. Pont. Rom. Greg. IX., de Smithetun de Hal., p. 176; Carta de Halis, 190; Taxatio, p. 203. Lra. Sasine Jacobi de Edmonstoun, Reg. Jac. I., p. 284. Carta de Halis (Easter and Wester), Reg. Jac. II., p. 287. Confirmacio Regis Jacobi Secundi, &c., Reg. Jac. II., p. 321. Conf^o. thome yhar, &c., Abbreviat., p. 371. Conf^o. C. Will. dni Creightoun, &c., Ab. 372, C. d. t. forestare, Ab., &c, p. 379. Conf^o. ter. ac Molendini de estir haillis, Ab., p. 384, Appendix I., p. 418. Rentale, 433, 447, 451, 459. Infeod., &c., 476, 487, 488, 492, 495, 502.

father, and eldest brother Edward, in the battle on the banks of the Aine. This sad event, especially the death of the king, which, as is well known, threw Scotland into confusion, by creating a war of succession, had a fatal effect on the already enfeebled constitution of the queen, for she died on that very day, or soon after; and Ethelred had the painful duty to perform of conveying the dead body of his mother secretly out of Edinburgh Castle, which was then besieged by the usurper (Donald Bane) to Dunfermline, where it was buried before the altar of the Holy Cross.¹ Ethelred evidently did not long survive these heavy trials; for no mention is made of him after the reign of his brother Edgar,² who ascended the throne A.D. 1097; and indeed it is reasonable to suppose that he must have been dead at this date, otherwise, as the second son of Malcolm, he would have been raised to the throne. And, curiously enough, of all the six sons and two daughters of Malcolm and Margaret, Edward and Ethelred are the only ones referred to by Wynton in his chronicle, whose bodies are laid beside that of their mother in the same sepulchre at Dunfermline. When a mere boy Ethelred appears to have been created by his father lay abbot of Dunkeld and Earl of Fife, the former office being ancestral, and implying the possession of large territories in the centre of Scotland. In all probability a considerable portion of Mid-Lothian had been gifted by the king to this son; at all events, he must have acquired the lands of Hale in this way; for in the deeds already referred to he is said to be his gifts to the church of the Holy Trinity at Dunfermline.³ Farther reference is made to this same prince in a deed record in the *Regist. Prior. S. Andrews*, at p. 115. There Ethelred is spoken as "a man of venerated memory," and he is represented as giving God the Omnipotent and St Servanus, and the Keledei of the isle Lochleven Ard and it is stated "that t he was yet in boyhoc

¹ Hailes, *Ann.*,

² *Celtic Scot.*, by

³ Near the site of



father, and eldest brother Edward, in the battle on the banks of the Alne. This sad event, especially the death of the king, which, as is well known, threw Scotland into confusion, by creating a war of succession, had a fatal effect on the already enfeebled constitution of the queen, for she died on that very day, or soon after; and Ethelred had the painful duty to perform of conveying the dead body of his mother secretly out of Edinburgh Castle, which was then besieged by the usurper (Donald Bane) to Dunfermline, where it was buried before the altar of the Holy Cross.¹ Ethelred evidently did not long survive these heavy trials; for no mention is made of him after the reign of his brother Edgar,² who ascended the throne A.D. 1097; and indeed it is reasonable to suppose that he must have been dead at this date, otherwise, as the second son of Malcolm, he would have been raised to the throne. And, curiously enough, of all the six sons and two daughters of Malcolm and Margaret, Edward and Ethelred are the only ones referred to by Wynton in his chronicle, whose bodies are laid beside that of their mother in the same sepulchre at Dunfermline. When a mere boy Ethelred appears to have been created by his father lay abbot of Dunkeld and Earl of Fife, the former office being ancestral, and implying the possession of large territories in the centre of Scotland. In all probability a considerable portion of Mid-Lothian had been gifted by the king to this son; at all events, he must have acquired the lands of Hale in this way; for in the deeds already referred to they are said to be his gifts to the church of the Holy Trinity at Dunfermline.³ Farther reference is made to this same prince in a deed recorded in the *Regist. Prior. S. Andrews*, at p. 115. There Ethelred is spoken of as "a man of venerated memory," and he is represented as giving "to God the Omnipotent and St Servanus, and the Keledei of the island of Lochleven Ardmure with its rightful boundaries and divisions," and it is stated "that this possession was given him by his parents while he was yet in boyhood." The Keledei were a community of hermits

¹ Hailes, *Ann.*, vol. i.; Wynton's *Chron.*, vol. ii. pp. 271, 272.

² *Celtic Scot.*, by W. F. Skene, vol. ii. p. 370.

³ Near the site of the church is a place called Kingsknowes.

that then lived at Lochleven, and the terms of this transaction indicates not merely the pious and generous character of the prince, but the source from which he derived those possessions which he subsequently bestowed for religious purposes.

It is impossible to fix the exact date when the church was erected at Hale, as no mention is made of this, although the church itself, as well as the lands, are often referred to in subsequent charters. In all probability this would follow soon after the gift by the pious founder. According to Chalmers (*Caledonia*, vol. ii. pp. 793, 794) the church stood on the spot where the mansion house of Hailes now stands—in all probability a little to the east of it. And from the circumstance that St Cuthbert was the patron saint, perhaps some rude religious house occupied the same spot, or some place contiguous to it, some centuries before 1095. For it is well known that St Cuthbert—who lived about the middle and towards the end of the eighth century, and whose spiritual jurisdiction, as well as that of his successors, extended for years over the Lothians even beyond Abercorn—was frequently in the habit of forsaking his cell at Lindisferne, and wandering for days and weeks among the moors and solitudes of the country, in order that he might preach to the people in these remote districts the words of truth and life. At all events, after Ethelred's gift, a church was erected at or near the spot indicated, and occasional services would no doubt be conducted in it, in the first instance by clergymen from the Church of the Holy Trinity at Dunfermline, and subsequently by those monks of Canterbury that were placed afterwards in the Abbey, and their successors. However, in the year 1226, and perhaps long previous to this, it had a resident clergyman; for in a deed dated "*die sanctæ fidis virginis*," 1226, a Magister Ricard is denominated "Parson" of Halis, and this same person, in another deed about the same time, is called "Rector"; so that by the early part of the thirteenth century, at all events, the church had become a rectory, and the rector, we may suppose, entitled to the fruits of the living.

On the alleged authority of Fordun (vi. 42) it is said that the church and lands of Hales were taken from the monks of Dunfermline and given

to the canons of Holyrood by William de Malvoisin, Bishop of St Andrews, because on one occasion there was a deficiency of wine for supper. But this statement seems to require verification; for as this bishop lived before 1238, and as the grant to Dunfermline is confirmed by Alexander III. after 1250, it seems to be devoid of truth.¹ In the beginning of the thirteenth century—shortly before or after 1226—there was a dispute between St Cuthbert's Halis and St Cuthbert's "Subtus Castellum de Edenburg" in regard to the teinds "de Craggis de Gorgin"; and the Abbey of Holyrood, one of whose churches St Cuthbert's, Edinburgh, then was, is ordered by the Abbot of Lindores and the Prior of St Andrews and Lindores—the umpires—for the sake of peace, to pay to the church of St Cuthbert's Halis, at Martinmas (ad festum Sancti Martini) each year, one bezant and eleven shillings to provide lights (luminaria) for the latter church. On the 4th June 1280, an agreement is come to between Lord Randolph the abbot and Lord John of Lastalrick (Restalrig) concerning the land of "Halys" and its pertinents, in which "Symon," son of the latter, is mentioned. On the 7th June 1163, Pope Alexander III., in a bull issued from Quiron in the third and fourth year of his pontificate, refers to Halis. So also does Pope Lucius III. from Verona on the 14th November 1184. In answer to a petition from the abbot and convent of Dunfermline, Pope Honorius III. gives grants from the churches of Hales and Kinglassen for meeting the increasing expenses of the monastery, and the date of the letter is the ides of January, the tenth year of the pontificate. In a letter of Pope Gregory IX. from Reate, 9th August 1232, the town of Halis is mentioned; and the "Smithetun," in a letter by the same Pope, dated 8th October 1234. Chalmers, in his *Caledonia*, says that the church of Hales was at one time given to the canons of St Anthony in Leith, and confirmed by Bishop Kennedy in 1445; and the same authority mentions a suit in Parliament in regard to it in December 1482. "It continued," says

¹ The right of presentation to the living was taken away, not the lands; and the deficiency of wine was caused by the bishop's own attendants—not by the servants of the monastery.

Chalmers,¹ "probably with the canons of Anthony till the Reformation. The church of Hailes appears to have been always of great value, and it was rated in the ancient Taxatio at sixty merks. As the rectory was monastic property, the cure was of old served by a vicar. Though the church ceased to belong to the monks of Dunfermline, they continued superiors of the lands of East Hailes to the Reformation." Except that portion of this statement which accurately describes the value of the living, the other parts of it would seem to require confirmation, because, as has already been stated, Mr Ricard was rector and not vicar in 1226, and so also was Thomas de Crechtoun at a subsequent date.

The word Hale is Celtic, and signifies a moor or hillock, and this title would accurately describe the situation of the church and parish towards the close of the eleventh century. Indeed, the whole of the south-west of Edinburgh at that time would be nothing more than a series of moors, rising to the top of the Pentlands, with here and there, perhaps, near to the Water of Leith and the other small streams, patches of cultivated ground. Edinburgh itself, about 1095, consisted of little more than its Castle (*Castellum Puellarum*). There might probably be a few houses outside the castle walls, and perhaps some rude Saxon church near to where St Giles' church now stands, but little else. Of course outside the fortress there was the ancient church of St Cuthbert, which has long since disappeared,² whilst within there was the little chapel, now called St Margaret's, where the members of the Royal Family worshipped whilst staying in the Castle. But Holyrood³ had not yet come into existence, and the Canongate itself was a hunting field abounding with harts, hinds, foxes, and other animals of the chase. On the Water of Leith, where the parish of Colinton now is, there was in 1226 a mill, the property of Thomas of Lastalric (Restalrig), in close proximity to the church property; and the boundaries of this mill and the land belonging to it formed the subject of a dispute between the proprietor and the then rector of the parish, the settlement of which is duly recorded. There was also in the same year a

¹ *Caled.*, vol. ii. pp. 793, 794.

² It is said that the present building occupies the old site.

³ *Regist. Holyrood*, page 12.

mill, called "Teggen" mill, which was forfeited, and in a dispute which arose between the Prior of St Leonard's Hospital, Edinburgh, and the parish of the parish, the acting manors of the Pope gave the tithes to the Prior of St Leonard's, but retained them as pay to the church of St. Andrew three shillings, viz. sixpence at Pentecost (Whitsunday), and sixpence at the Feast of St. Martin (Martinmas), for providing tithes for that church.

Almost no vestiges of the ancient church of Hale or Hales and its belongings remain. There is at the west side of the west door of the present church a broken piece of what has evidently been an early grave-stone. Above a doorway in a wall in the garden of Hales House, to the west of that house, there is a rude stone with three seated figures on it, evidently representing the Holy Trinity. There is also a square tower, under which, or near to which, is a well, the water of which is forced up by a pump; while over the grounds are parts of old walls. Some time during last century, while digging a foundation for a pigeon-house, in a field to the east of Hales House, through which the Balerno branch of the Caledonian Railway now runs, the workmen came upon human bones, and the conclusion came to was that this was the burial-ground of the ancient church.¹ More minute inquiries might perhaps result in additional traces and remains of the ancient ecclesiastical establishment. But in all probability the church and its belongings were completely destroyed at the Reformation. It was near the metropolis, in close proximity to the scenes where the greatest excitement prevailed, and when on the 28th March 1561, the Lords of the Congregation "past to Strivling (Stirling) and by the way keit down the Abbey of Dunfermling"² in all probability this nearer and smaller ecclesiastical edifice, attacked by the mob, was likewise a ruin.

¹ In the inside of the south wall of the present church, under the tower, in the area, there is a panelled stone, having this inscription:—
HONORABIL · VOMAN · A · HIRIOT SPOVS TO · I · FOVLIS ·
TOVN VAS QVHA · DIED · 8 · AVGVST · 1595." As there is no other inscription in the area, and as the church was destroyed in 1561, it is probable that this was a burial-ground of the Foulis family immediately beneath this its present place in 1636, in all probability previously.

² *Regist. de Dunferm.*, Introd. p. xxv.

In all probability the plural form of the word Hale arose from the circumstance that the whole district was of an undulating description—full of moors or hillocks. At all events, there came in course of time to be an Easter and Wester Hailes in the parish. And Chalmers says there was a North Hale and South Haile in East Lothian, while in the diocese of Lincoln, at the present day, in Nottinghamshire, there is a parish called Hale (*magna et parva*), and other places of the same name in England. According to Chalmers, also, the word Hale, as signifying a moor, is still retained in the Cornish, for in Cornwall there is a village of this name. The first mention of the word Colinton in the chartulary is in the Register of Feus, and it is there spelled Collingtoun, and used in connection with a Mr Henrie Foulis, evidently between the years 1557 and 1585. When the parish was first founded, in all probability there were no villages in it and no mansion-houses. The only evidence of a proprietor distinct from the abbot and convent of Dunfermline for centuries afterwards is Thomas of Lastalrick. With the exception of one property that has been added since 1560 (Craiglockhart), the ancient boundaries of the parish must have been the same as they are now.

V.

NOTICE OF A SEPULCHRAL CHALICE AND PATEN OF PEWTER, FOUND
IN BERVIE CHURCHYARD. BY REV. J. GAMMACK, M.A., DRUMLITHIR,
CORR. MEM. S.A. SCOT.

In the middle of December 1882, the grave-digger in the churchyard of Bervie found, at the depth of about $4\frac{1}{2}$ or 5 feet from the surface, the accompanying chalice and paten. The site in the churchyard was about 5 yards southward from the south-east corner of the ruined old church, and the turf or soil did not appear to have been disturbed for many years. The objects were found together among the mould, with the appearance of bones near them. The chalice had been standing upon the paten, and apparently with the bowl downwards. If, as is probable, they had been

buried in the coffin of some ecclesiastic, the weight of the mould, as the coffin decayed, had squeezed the chalice into a depressed condition, and there is no appearance of distortion beyond what would result from direct vertical pressure. The metal, as is usual in such sepulchral deposits, appears to be lead or a heavy pewter. We owe this valuable relic of antiquity to the care and kindness of the Rev. John Brown, M.A., parish minister of Bervie.

But this peculiar *find* at Bervie suggests two questions of great interest as to (1) the prevalence of such deposits, and (2) the position of Bervie as an example of them in Scotland.

(1) The fact is unquestioned that the presence of *insignia* of honour and office, belonging to the deceased, has been common at burial in all ages. It seems to appeal to some natural instinct, and from this consideration we are prepared to receive the evidence that episcopal and sacerdotal interments were often graced with such observances. It was an appeal to the sympathetic attachment of the living, and an unmistakable honour to the dead, that the bishop should be consigned to his last resting-place in the vestments and with the *insignia* of his office, and the priest as still in the discharge of his sacerdotal functions. We have little, if any, record of the actual placing of chalice or paten in the coffin with bishop or priest, but we have abundant *ex post facto* proof on the opening of the tombs, that such had been done. Without going to the Continent, where the same custom was followed, we find a chalice and paten with Bishop Grosseteste (thirteenth century) at Lincoln, with Archbishop William de Melton (fourteenth century) at York, and with Bishop Swinfield (fourteenth century) at Hereford, but they are singularly seldom met with in Scotland.¹ It is worthy of note that the custom of placing

¹ On inquiry at some of the English cathedrals, we learn that there is no record of any having been found at Canterbury, Ripon, or Carlisle; at Durham none has been found since Henry's Commissioners rifled the tombs in 1541; at Wells there is a pewter chalice; at Lincoln, some half-dozen found in the graves of Bishops Grosseteste, Gravesend, and others; at Hereford, two chalices and patens, the one set (of silver) being from Bishop Swinfield's tomb (1282-1315), and the other (of pewter) from the tomb of his contemporary, and probably his relative, Gilbert de Swinfield.

a chalice and paten in the grave is not of early date, but belongs to the later Middle Age, when the spirit of religion was becoming more and more materialised and hid in formal observances. Though we read that at the Reformation the grave of St Cuthbert of Lindisfarne was opened by King Henry's commissioners, and found to contain "a ring of gold, a chalice of gold and onyx, and a paten," yet there is no reason whatever to believe them older than the enshrinement in 1104, when the new cathedral at Durham was made a fitting and final resting-place for the often-shifted relics of the saint; we know that the relics were enshrined with the utmost reverence and honour. But when the remains of St Swithin were raised from their grave, and replaced with honour, in 970; or those of St Edward, king and martyr, in 979; or those of Adulfus, archbishop of York, in 1002; or those of St Oswin, king and martyr, in 1065, at Durham; or those of Wallenus, second abbot of Melrose, in 1171; or those of Ada, bishop of Caithness, in 1239; or the bones generally of the preceding abbots of Melrose, in 1240, we have no mention made of any special *insignia*, unless we are to suppose that the "vestments" were something different from the ordinary trappings of the tomb. This, however, is but negative evidence with regard to the date, *quantum valeat*. The shape of these *calices sepulchrales* is always very plain or with the slightest decoration. I send outlines of the chalice and paten found in Bishop Swinfield's grave at Hereford, as represented in Messrs Th. Pratt & Son's *Catalogue of Church Furniture*; the paten shows in the centre a hand raised in benediction, and encircled with the words "Dextera Dei," but the one found at Bervie is plain.

(2) We may assume at once that the grave at Bervie belongs to a date

chancellor of the choir (d. 1297); at York Minster there are three silver chalices, still sometimes used at the altar; at Lichfield, three chalices, two at least being pewter; and at Wells, a pewter chalice. Though found in the churchyard at Kingoldrum with the well-known bell in 1843, the bronze chalice and glass bowl do not appear to have been properly sepulchral, but buried for security. At the Scotch museums we can find no specimens of the sepulchral chalice or paten, except, perhaps, two patens at the manse of Birnie; and the chalice and paten of wax from the tomb of Bishop Tulloch of Orkney in the National Museum.

prior to, or very soon after, the Reformation in the sixteenth century, and unfortunately we know little of the condition of Bervie till some time after the separation of the parish from Kinneff. About the end of the thirteenth century Bervie is ranked with Dundee, when, as related by John of Fordun (*Ann.* i. c. 30), King William conferred on his brother David, Earl of Huntingdon, "the earldom of the Garioch, the town of Dundee, the town of Inverbervie, and the lordship of Longforgan, with many other lands." In 1483, when the Parliament, held in Edinburgh on the 21st day of March and continuation of days, imposed taxes upon the burghs beyond the Forth, Bervie is rated at 10s., which may be compared with Forfar's £1, 6s. 8d., Arbroath's £2, Brechin's £4, Montrose's £5, 6s. 8d., and Dundee and Aberdeen's £26, 13s. 4d. (*Spald. Club, Misc.*, v. p. 27). In the temporal lordship of Lindores, the Commendator and first Lord Lindores in 1600 had conferred upon him by royal charter, for his "good and faithful services," *inter alia*, "an annual rent of eight shillings from Bervie, in the county of Kincardine." And as matter of fact, from the time of its receiving the charter of a royal burgh from King David II. in 1342, and again from its renewal by King James VI. in 1595, Bervie, or more properly Inverbervie, must have been a place of some local importance, and up to the beginning of the present century it contained residences of the neighbouring gentry. About the fifteenth or sixteenth century, and probably earlier, there seems to have been a House of the White Friars, whose places of residence and internment were near the "Friars' Dubbs," near the east end of the burgh. The late Precentor Walcott mentions the names of three priors—James Howysone about 1480, John Lyndsay about 1539, and John Anderson (without a date); by the beginning of the seventeenth century the friary was decayed, and the revenues, &c., alienated. But of the details of Bervie's social and ecclesiastical condition we have no evidence. In 1608 it was still a part of the parish of Kinneff, and the parish minister maintained a suffragan at Bervie. In 1618, the Lords for the Plantation of Kirks disjoined Bervie from the parent parish. But before its disjunction, the royal burgh must have been the chief centre of population in the parish of Kinneff, and

had probably a chapel and place of interment within the bounds of the burgh. In the Old Taxatio there is entered "Kinneff cum capella," and this *capella* is more likely to have been at Bervie than at Barras in the same parish. In other words, the cause of the disjunction of Bervie from Kinneff was, in all likelihood, not the mere extent of the parish, but the claims of Bervie as already possessing the population and ecclesiastical appliances without the parochial status. Of the priests, however, who served there in the pre-Reformation period we have no record whatever, and this chalice and paten were placed to honour the tomb of some priest now unknown, who rests from his labours, and to the world is nameless.

MONDAY, 11th June 1883.

ARTHUR MITCHELL, M.D., LL.D., Vice-President,
in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows :—

Rev. DONALDSON ROSE, Minister of the Free Church, Brechin.
JAMES B. KERR, Banker, Kelso.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors :—

(1.) By GEORGE HAMILTON, Skene House.

Cup-shaped Stone, a circular Boulder of granite, flattish above and below, 9½ inches diameter and 6 inches thick, with shallow cup-shaped hollows of about 2½ inches diameter and 1 inch deep on its opposite surfaces, found in a Stone Circle at Skene, Aberdeenshire.

(2.) By J. H. RIVETT-CARNAC, C.I.E., &c., F.S.A. Scot.

Steel for flint, mounted in brass-bound leather case, with chatelaine of pins, ear and tooth-picks, pincers, &c., from Dakri in Kumaon, North-Western India.

String of thirty Beads of glass or stone; one flat Spindle-whorl of stone, pierced in the centre; two flat Spindle-whorls of stone, unpierced; one Spindle-whorl of burnt clay, in form of a truncated cone; one Bead of stone, unpierced. [See the subsequent Communication by Mr Rivett-Carnac.]

(3.) By the TRUSTEES OF THE INDIAN MUSEUM.

Catalogue and Handbook of the Archæological Collections in the India Museum. Part i. By John Anderson, M.D. Calcutta, 1883. 8vo.

(4.) By the SECRETARY OF STATE FOR INDIA.

Archæological Survey of Southern India. Lists of Remains in the Presidency of Madras. By Robert Sewell. Vol. i. Madras, 1882. 4to.

(5.) By HEW MORRISON, F.S.A. Scot., the Author.

Guide to Sutherland and Caithness. 12mo. Edinburgh, 1883.

(6.) By the SENATUS OF THE UNIVERSITY.

The Edinburgh University Calendar, 1883-84.

(7.) By LAUCHLAN MACKINNON, Elfordleigh, the Author.

Genealogical Account of the Family of Mackinnon. Privately Printed. 1882.

(8.) By D. DOUGLAS, 15 Castle Street, the Publisher.

Scotland in Pagan Times—The Iron Age. The Rhind Lectures in Archæology for 1881. By Joseph Anderson, LL.D. Edinburgh, 1883.

(9.) By the SOCIETY OF ANTIQUARIES, London.

Proceedings of the Society of Antiquaries of London. (Second Series.) Vol. viii. Nos. 4-6; vol. ix. No. 1—Archæologia; vol. xlvii. part 1.

(10.) By the BRITISH ARCHÆOLOGICAL ASSOCIATION.

Journal of the British Archæological Association. Vol. xxviii. parts 2-4, and vol. xxix. part 1.

(11.) By the ARCHÆOLOGICAL INSTITUTE.

The Archæological Journal. Nos. 154-157.

(12.) By the CAMBRIAN ARCHÆOLOGICAL ASSOCIATION.

Archæologia Cambrensis. The Journal of the Cambrian Archæological Association. (Fourth Series.) Nos. 49-52.

(13.) By the ROYAL HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

The Journal of the Royal Historical and Archaeological Association of Ireland. Nos. 50-53.

(14.) By the ROYAL SOCIETY OF NORTHERN ANTIQUARIES, Copenhagen.

Aarboger for Nordisk Oldkyndighed. 1882, parts 2-4, and 1883, part 1.

Memoires de La Société Royale des Antiquaires du Nord. 1881.

(15.) By the ROYAL ACADEMY OF SCIENCE, &c., through Dr HANS HILDEBRAND, Royal Antiquary of Sweden.

Teckningar ur Svenska Statens Historiska Museum. Parts 1, 2.

Svenska Sigiler fran Medeltiden. Vol. i.

Anglo-Saxiska Mynt i Svenska Kongl. Myntkabinetet. Stockholm, 1881.

Minnespenningar ofver Svenska Man och Qvinnor. Stockholm, 1860.

Sveriges Konungahusets Minnespenningar. Stockholm, 1874-75.

Antiquarisk Tidskrift for Sverige. Vols. iv., v., vi.

Kongl. Vitterhets Historie och Antiquitets Manadsblad. 1872-1881.

A Walter Scott
La douce lampe
De nos veilles
S'est éteinte.

The Countess Wolkonsky belonged to a well-known family of Polish extraction, and though the reading of the MS. is certainly "the Countess Wollenluss," it seems probable that Sir Walter, in his extreme illness and weakness, had mistaken or half-forgotten the name.

LIST OF PURCHASES

Acquired by the Purchase Committee for the Museum and Library,
30th November 1882 to 2nd June 1883.

1. Bronze Palstave or Winged Celt, found at Drumfad, Blackford, Perthshire, $5\frac{1}{4}$ inches in length, $2\frac{1}{4}$ inches across the cutting face, the extremities of the wings slightly bent over the shaft.
2. Old Scotch Lock and Key.
3. Flat Highland Powder-horn, $11\frac{1}{2}$ inches in length, and 4 inches wide at the base, ornamented with circles of interlaced work and geometrical patterns, and having the initials D. M. and the date 1669.
4. Carved Ivory Comb, double-edged, the centre ornamented with a pattern of foliaceous scrolls, stated to have been found near the ruins of the Nunnery, North Berwick.
5. Wrought iron Toaster, from Inverkeithing.
6. Large Highland Powder-horn, 17 inches by $3\frac{3}{4}$ inches, plain.
7. Quaich of Bell-metal, the bottom enclosing a coin of James VII.
8. Variegated Bead of serpentine, $\frac{3}{4}$ inch in diameter, found in the river Lyon, near Fortingall.
9. Wrought iron Finial, from an old house in Blyth's Close, Edinburgh.
10. Polished Stone Celt, $6\frac{3}{4}$ inches in length by $2\frac{3}{4}$ inches across the cutting face, from High Slock, Kirkmaiden; and twenty Arrow-heads of flint, from Glenluce, Wigtownshire.

11. Carved Highland Powder-horn, 15 inches by $3\frac{3}{4}$ inches, with pewter mounting of the mouth, and the initials D. G. and the date 1680.
12. Wooden Case, carved and inscribed with couplets, of the seventeenth century.
13. Polished Celt, $6\frac{1}{2}$ inches in length by $2\frac{3}{4}$ inches across the cutting face, from Harrow Hope, near Stobo, Peeblesshire.
14. Two Sepulchral Urns, one cinerary, 9 inches high and 7 inches diameter, the other of food-vessel type, $3\frac{1}{2}$ inches high by $4\frac{3}{4}$ inches diameter, both found near Drumshargard, Cambuslang, Lanarkshire.
15. Two Carved Oak Panels, with dragonesque ornamentation.
16. Penannular Gold Armlet (broken), found in the Western Isles.
17. Four polished Stone Celts, viz., of sandstone, $9\frac{1}{4}$ inches in length by 3 inches across the cutting face, from Corennie, Cluny; of sandstone, $8\frac{3}{4}$ inches in length by 3 inches across the cutting face, from Corse, Coull; of gneiss, $7\frac{3}{4}$ inches in length by $2\frac{3}{4}$ inches across the cutting face, from Williamston, Kincardine O'Neill; of gneiss, $7\frac{1}{2}$ inches in length by 3 inches across the cutting face, from Hill of Mortlach, Lumphanan, Aberdeenshire.
18. Bronze Palstave or Winged Celt, 6 inches long, $2\frac{1}{2}$ inches across the cutting face, found near Peterhead.
19. Twelve Arrow-heads of Flint, from Aberdeenshire.
20. Wrought iron Toaster, from Dunfermline.
21. Three basket-hilted Broadswords.
22. Small Sepulchral Urn, $3\frac{3}{4}$ inches high by $4\frac{5}{8}$ inches diameter, found at Yetholm.
23. Arrow-head of Flint, from Jedburgh, and Whetstone, from Lammermuir.
24. Large wedge-shaped Hammer of greenstone, $9\frac{1}{4}$ inches by 4 inches, perforated, found near Roslin.
25. Polished Stone Celt, $5\frac{3}{8}$ inches in length by 3 inches across the cutting face, found at the Loch of Menteith.
 † Arrow-head, found at Doune, Perthshire.

like shape, $8\frac{1}{4}$ inches in length, 3 inches in greatest breadth, and $\frac{3}{4}$ inch in its greatest thickness, is also in the Museum. It was found near Glenluce, Wigtownshire, and was presented by Rev. George Wilson, Glenluce, Corr. Mem. R.S.A., in 1871. There is also a portion of a similar specimen from Castle Douglas, Kirkcudbrightshire, presented in 1782.

(2.) By ALEXANDER HUTCHESON, Architect, F.S.A. Scot.

Two Earthenware Jars, taken from the walls of an old house in Dundee. [See the subsequent Communication by Mr Hutcheson.]

(3.) By Dr BLAIR, Tayport, through ALEXANDER HUTCHESON, F.S.A. Scot.

Urn of "Drinking-cup" type, found at Tents Muir, near Leuchars, Fife.



Urn found at Tents Muir, near Leuchars (5 inches high).

This urn, which was found in fragments in a hollow between the sand-

hills, and has been reconstructed by Dr Blair, is 5 inches high and 5 inches diameter at the mouth, the diameter of the base being $2\frac{3}{4}$ inches. It belongs to the type of tall narrow sepulchral vessel, with thin everted lip and bulging sides, commonly known as "Drinking Cups," to distinguish them from the wider and more bowl-shaped variety with thick lip, commonly known as "food vessels," both of which are found with unburnt bodies. Its ornamentation consists of impressions like those of a twisted cord of two strands wound spirally round the vessel from bottom to brim. A triple band of the same markings surrounds the inside of the rim.

The following Communications were read:—

I.

WHO ARE THE CELTS? By R. ANGUS SMITH, LL.D., F.R.S.,
F.S.A. Scot.

In a volume which I lately wrote on Loch Etive and the sons of Uisnach, I had occasion to go over several questions concerning the Celts, and I took a view of them which I think is gaining ground. I was tired of the Celtomaniacs, as many people were, but I had no desire, when discussing the questions relating to the Celts and Saxons of the British islands, to dismiss all the difficulties, and say that the two races were in reality one, as some have done, as if to show how simple the problem was made when they attacked it. This kind of solution is far from the truth, although there is a rough reality in it, as all men are one, and Saxon and Celtic languages are Aryan more or less.

These "authorities," I use the word, because in many things they are so, have desired to get rid of whole generations of previous writers, by throwing all they said aside and so coming to simplicity, an excellent result when true; but to do that they have to throw aside much that history tells us of the numerous names of people in Western Europe and nearly all that fore-history has revealed to us in the documents of the

soil, lessons scarcely hidden under the surface, sermons and stories found literally in stones.

The great discovery of the affinity of languages, and especially of one great wave called the Aryan, has led people to imagine that Western Europe was and is inhabited by an Aryan people, and the scientific class of men who at one time stood up for great diversity of races are succeeded by those who seem practically desirous of reducing mankind, at least in our regions, to unity, because some of the words which they use are the same in different tribes. I have said in *Loch Etive, &c.*, chap. xxvi. p. 342, &c.:—

“I am not aware of any proof of a purely Aryan race existing anywhere, neither do I know that any one has shown what an Aryan race really is. There is certainly no proof that such a race ever fully peopled Europe, but there are abundant proofs that it never did so in any known epoch. To have such a result, we must put the darker hill-men of Italy and the plain-dwellers of Holland and Schleswig into the same category, although they are as different to ordinary observation as Negroes and Chinese. We must bring in the Spanish and Portuguese with the Slav and the German. The Welsh and the Norman become one, although so different in type; and the Irish of all kinds, long recognised by themselves as different and as coming from different countries, must be called one. Character goes for nothing in this mode of arguing, as nearly all the characteristics known to us from India to Portugal, with some slight exception, are thrown into one. . . .

“Of course I am willing to say that all men are one; but there are differences, and it is convenient to call these by names, the word ‘race’ being well chosen for the purpose. . . .

“So far as I see, it is proved that an Aryan language has spread from the East, and of the whole theory of the language and its relations it is most interesting to learn the important results obtained. They have been found by men who have devoted their lives to the purpose. It is quite otherwise with the idea of an Aryan race being co-extensive with an Aryan language, and it seems to me that many men do not see the difference. I have seen no proof of the spread of any one race to such an extent as to people the West, and the differences already alluded to when speaking of the Celts constitute of themselves sufficient reasons.

“There remains, then, the old difficulty how to account for the similarity of language or the Aryan relationship of the languages.

“We may suppose a dark-haired race all over Central Europe and Britain,

as well as much of Italy, with a uniform Aryan language ; whilst incursions of various tongues to various spots changed it.

"We may imagine a diversity of people over the present Celtic Europe—not forgetting Rome—with a diversity of languages, these being invaded by Celts, who imposed much of their language, and by Germans, who imposed some also."

It will be seen, then, that I consider those who hold the nations called Celtic and those called Teutonic as one race, to be simply abolishing the knowledge we get from history, and refusing to look at very clear facts. More than this, I look on it as impossible to conceive the great nations of Europe as chiefly Celtic and Teutonic and Slavic, or in any way fully Aryan. We know that in the past the poor races, with their slender power of motion, must have lived in very secluded places and obtained peculiar manners; and even if they retained their manners, those less secluded and those more excluded would be exposed to different external impressions, and the different districts would gradually become dissimilar. It is remarkable what differences a river, for example, will make in people. I have mentioned one limit made by a river or sea-arm over which a man can swim, where Dumbartonshire had one language and Renfrew another, without change, from the entrance of the Saxons till our own day. On the other hand, with rapidity equally astounding languages and races are becoming mixed in a few years before our eyes under the influence of easy travelling.

These two facts, apparently contradictory, must be kept clear. There are many places in Europe where the population has been little moved, and there are others which are highroads of movement. These highroads have received the invaders, and there has been another although a much slower movement into the side ways of conquest, and sometimes the thinner line of conquest has been made uncertain by opening up an avenue for the comparatively endless amount of population of the original stock. Conquerors go where they feed best, they have been stopped by natural difficulties, such as civilisation has now in many cases rendered scarcely visible, and the conquered have been driven into corners where

the stronger have not cared to pursue them. In this way a population, even if exactly the same over all Europe, would in time become diverse by want of communication, although probably in a very slow manner, but by continual pressure of different races on various sides it would of course obtain diversity much more rapidly. Let us suppose that in Auvergne and in Armorica portions of the same race of people lived; let one be invaded by Rome and the other by Cornish or Welsh, the languages would change in a quite different direction, and meantime Welsh itself becomes modified by Irish, by English, by new habits, and by time. Supposing the original Gaels or Celts that brought the Celtic language to Ireland to have come from the East, they would have to meet in Ireland men from all the preceding ages, or at least some of the preceding. How many waves of men have come from the East since the first palaeolithic man wandered over Europe! Let us imagine him coming with his inventions, and actually teaching men to make hammers out of stone, to make instruments for cutting and killing. It was a great invention this chipping of flints. We must think of the men who first learnt this, working hard at their business, and we must imagine another set going about with these old stone rough hatchets on their backs, perhaps carried in baskets; these packmen would sell their flint wares and make money of some kind, returning perhaps from this country to Abbeville or elsewhere to find more. This Abbeville would be very different from the present, and whether this old stone age pedlar walked or paddled across the Straits of Dover, we cannot tell. He would not have come here without knowing that there was a market, and come he probably did. But some one will say that there were no pedlars; the wandering population went south and brought these tools back. Any plan is sufficient for my argument, which is that in those early times men lived here, and these were in times out of all reach of Sanscritism, in Europe in all probability, or any other known civilisation, except that which we have called, by the name of the instrument used, for peaceful or warlike acts.

We must imagine another great innovation when miners came from abroad most likely, for surely this island was not the cradle of humanity,

distant as it is from all the known historical and from all the most active portions of botanical and zoological life ; so we look to the miners coming from abroad and finding quarries of flint in the eastern counties of England. This would be a great discovery and a wonderful advance for England. The former men, the paleolithic, seem to have been over all the world. Is it probable that they covered it rapidly ? Surely we must give them a long period, and even if they required much ground for their uncultivated feeding, there would be great numbers of them, although not concentrated.

When the miners came from abroad, showing the inhabitants here where to dig for flint, they would not come as an army ; they were probably only a few cunning men obtaining a livelihood, and only in a very simple way making a trade for themselves. It is necessary to imagine a long time before these flints became very common here, even when found in British quarries. We learn by the discoveries of these sources that the flints were supplied here, at least after the first period, by native industry. We cannot imagine a host of neolithic men coming to the island and crushing out all the paleolithic. Such a result would be scarcely possible. The population must have been spare ; the want of extensive cultivation, known by the amount of wood, necessitates this. Great numbers of people could not be congregated ; it requires great resources to feed great crowds. Besides, we know that long afterwards the country was not easily passable by great numbers, and unity of people was impossible on a great scale. Even now it is happily not quite possible ; we seek diversity of character and not similarity. We are astounded at the difference of people in villages ten miles apart even in this century. It is quite marvellous how numerous have been, and still are, the styles of speaking and acting in this country, caused by slight barriers and distances. Whenever a man builds, even at a small distance from others, he feels the separation from his neighbours ; he finds it difficult to walk ten miles when he lives in a wild country without roads, and to return the same day. Besides, he has not time ; he must make his living. His journeys are therefore bounded by the amount of

overtime he has after having fed. Generally he has no object in taking such a journey if he has enough to eat.

However, I meant to show that a rapid conquest of the country by paleolithic men would be contrary to all we can imagine of the habits of such uncultivated people, and the conquest would be partly one of industry ; those who got the flints or could buy them best were the conquerors. A very slow progress is indicated by this. If this is the way of necessity in very early ages, we need not suppose that the difference was great in the immediate later ones ; the change of habits and the conquests seem to have been very gradual. But we certainly need not have gone to early ages to show this. In the very latest periods up to the beginning of this century all conquest was slow, extermination seems in all ages to have been rare ; and if this is right, the progress must have been slower in the early times spoken of, when concentration was little known. In the long struggles of races in Ireland it is remarkable how portions of nearly all which have been described seem to have survived, and how even families are preserved in continuity through many centuries, and how different the various inhabitants appear to be to each other even to this day.

It is very important to remark the great diversity of countenance in Ireland, and to know that the language amongst these faces has been long practically the same. Whilst the first is an evidence of the truth of the theory of the great diversity of race, and the absurdity of calling the population either pure Aryan or Celtic, the second shows clearly that languages mix better than people, a fact now recognised. Ireland itself, therefore, is a great example of the separate existence to the present time of various races, and of the diversity of the appearance of races at one part of the Western European limit of migration. It is at the same time a fine example of oneness of language being no proof of oneness of race. I take it to be that there was only one language before English intrusion.

It is not easy to obtain a past from a present, but in this late generation we have a better opportunity of seeing how a country begins to be inhabited than any who have written history before our time. We have

seen great tracts taken possession of before our eyes, we may say ; some of them without inhabitants, or at least nearly so, and many with few. We have seen the struggling races of Australia scarcely occupying the country, and the American natives who could only wander over it, and to whom the enormous wealth of the land was invisible. As dogs taken into the British Museum, seeing nothing to eat or to interest them, so were the Red Indians in their splendid country. We know to some extent what would first happen amongst the early settlers in Ireland ; the island would be inhabited first in creeks and valleys, as most countries are, and the people would meet each other only after long periods had given them time to increase, or new invaders had given them reason to seek more room. Traditions of this early condition are actually found so late in time as even early Irish story, giving a probability of truth which cannot be overlooked. We read of the Firbolgs being in Ireland for thirty-six years before they found that the Tuatha de Danaan were on the island. The Firbolgs themselves were said to have been long out of the country, in Thrace for a time, and had been absent altogether above two hundred years. They are spoken of as coming back with the same tongue. (That may have been, but they were probably not far off and the time much exaggerated ; they only went, perhaps, such a distance as from Dublin to Bantry Bay, if the story is to be taken as having any foundation at all.) Perhaps some people will say that this separation of tribes has made the change which gives the appearance of difference of race, and that inferior food and depressed conditions of every kind have lowered the caste in certain districts, whilst abundance has improved it elsewhere. Irish history forbids us to carry on this manner of reasoning far. We may quote a translation by O'Curry from the "Book of Genealogies of MacFirbis" (*Lectures*, p. 580) :—

" Every blusterer, wrong-doer, distinction clear,
Every thief, liar, contemptible wretch,
Are the remnants of the three people hitherto,
The *Gaileoin*, the *Firbolg*, the *Firdomnann*."

And on page 224—

"Every one who is black-haired, who is a tattler, guileful, tell-taleing, noisy, contemptible ; every wretched, mean, strolling, unsteady, harsh, and inhospitable person ; every slave, every mean thief, every churl, every one who loves not to listen to music and entertainment, the disturbers of every council and every assembly, and the promoters of discord among people, these are the descendants of the *Firbolgs*, the *Gailians* of Liogairne, and of the *Fir-Domhnann* in Erin. But, however, the descendants of the *Firbolgs* are the most numerous of all these."

From this condition of things I explain the other great fact, that the nations now called Celtic, and those also which were called Celtic, have little similarity, and in some cases are remarkably diverse. They seem in reality to be as unlike each other as any one race is from another ; in other words, we could out of them make several, if not many, races ; and if several persons were to describe the so-called Celtic races of to-day, they would give us results as contradictory as those given by the various writers of the early centuries. Indeed, we need not speak hypothetically, we require only to read the character of the Celts given by Mr Broca and that by Mr Poesche, both two of the latest writers, and we find one making the original and true Celt small and black, and the other making him large and fair, the old contradictory and unmeaning ways appearing as freshly as ever.

Again, when we now look at the people of the Celtica of the Romans we do find them dark, and the people of Italy, into which Celts are found to a large extent, dark, whilst the Celts coming over the Alps from the eastern side are said to have been light ? These things have produced the strange and numerous kinds of Celtomania that have amused and troubled ethnologists before such a word was used for the students of the subject.

I do not know whether my position is quite new. It is not so new as I thought it was. When I first wrote it I had not seen Poesche's book on the Aryans. I take the people of Gaul and of Celtic Britain and Ireland as they are and as they are described ; either will do. I find that they do not answer the description of any theory of the Celts whatever. The people of France are dark in the west, as Broca shows, and lighter

in the east, which would exactly suit some descriptions, and indicate the existence of a dark people being invaded from the east by a light. The whole stands so at present, as if this account of the matter were a continuous fact. If we go to the most Celtic-speaking countries of the world, Ireland and Wales, as well as West Scotland, we find people entirely different. The Welsh and Irish are remarkably different in type, in height, in weight, and in expression of countenance as well as character.

Some men have tried to prove the Welsh to be Iberians. I find them neither small nor dark, although not tall. Some men try to make the Irish dark, as if Iberian and coming from Spain, in which case they ought to be like the Welsh of the same reasoners. I have seen no people like Welshmen coming out of Ireland. The Milesians were not dark, and could not be Iberians. The Irish were of different appearances, according to their oldest writers, as already quoted; we have several kinds described, but I think I could pick out more than we see described in their books. As to their dark small men they are not the "noble Iberians," but are said to have been mean and low in character. In any case the diversity in Ireland is remarkable, and seems to be accounted for by its being the last place to which the successive eastern waves reached: a greater variety therefore has been crowded there. I see some people venturing to describe or give names to prehistoric or fabulous old races. The attempt is vain. We have no data worth mentioning, there may be a hundred represented among us; the remains of some types as they wandered over the land, whether from Asia or South Russia. We say nothing definite when we begin with Eskimos, as if we knew them to be the originals of men. We say as little when we talk of cave man and paleolithic and neolithic men; we might as well talk of brick-house men, stone-house men, castle men, and beggar men. Some of these names are useful only as indicating comparative periods. Before the world was covered by men using stone implements, such time must have elapsed as produced many diversities of people and languages. When we think of the changes made in the latter in historic time with literature tending to diminish the change, what must not have taken place when men were

frightfully ignorant, separated by seas and forests rarely passable, or passed only in direst emergencies. We can imagine these races moving sometimes slowly, never rapidly, but driven on by a determined fate, till, when they came west, a congeries would be found huddled perhaps together in the more inhabitable parts or scattered in the wildest manner, like the trees and rocks and portions of houses, that the water escaping from some broken reservoir scatters over the nearest plain or before the first obstruction. Let us imagine a hundred races, not at all presuming that there were not thousands, we can fancy one specimen of the first, two of the second, or so on, or in any proportion. This great deposit I conceive to be in the west of Europe, and notably in Ireland. In Ireland there are many of a most inferior race of men to my mind, but there is no doubt of the fact of a class of most noble workers at a certain period, and in all known times of a number of the most active of minds, quick in imagining, unwilling to reason carefully, quick in moving, unwilling to work patiently; the minds and bodies have been alike restless from early historic times. But we must not go to the neutral regions at present, although I believe that we could pick out the character of thought characterising the people at various times, and find it to be the same as now, more readily than we could recognise the skulls of the various races which have been picked out hitherto, so far as I can find.

And what has been the consequence of this flood of races? Do we conclude that we have the débris of all? By no means; the best may not survive, and the worst may be best able to make a living—the fittest to survive under the circumstances. There is among the people of Ireland a vitality and tenacity of life such as is nowhere seen in the kingdom; but whether it be in the purely Celtic, if there are any such, or in the other races, is not known. I have been in the habit of looking at the deaths at an age over a hundred years in Ireland, and I find the tenacity corroborated in a remarkable manner. I know that the authenticity of these records is not by all persons held to be rigid, and it would be difficult to prove all the cases, and I shall not attempt to prove them, and only record my opinion that the tenacity of life, the youthfulness at

known advanced ages, of persons in Ireland, is such as to render these recorded ages highly probable, although even in Ireland men cannot endure starvation. Independently of this, I came to the conclusion before observing these statements, that there was in Ireland this great capacity of continuation. Who indeed can doubt it when they see the lively airs, and the dance, the spring, the shout, the fun of fighting, and the carelessness of pain? They still retain this difference, distinguishing them from the Germanic races in a notable manner, bodily as well as mentally. I think we may fairly judge that the characteristics mentioned are not caused by the newest, that is, by the Teutonic races, and their existence shows that this later element has been to a large extent overpowered by the previous. So difficult is it to conquer a nation without overwhelming it with numbers.

Finally, if it is necessary further to explain, I look on the races at present called Celtic as more mixed than less western races, and as containing types from the earliest times, and by no means to be called by any one name except from their language or dialects—dialects produced by the mixture of the various conquered peoples with a more or less dominant Celtic language. This shows clearly why the world has been full of contradiction regarding the word Celtic, and it is surprising that it should so long have attempted to unite so many different beings under one name. Instead of simplifying the matter and going back to far ages for the formation of diversities, there has been a desire to simplify by throwing in numerous people as Aryan.

Amongst all this diversity of people covering Celtic lands we hear of the Celtic skull. I consider it a bold thing to speak of. I do not object to looking on the true Celt as a light-haired, large, and fleshy race, but how do we get their skulls? How do we separate these invading Celts from the persons invaded? Shall we take Broca's or Poesche's Celt? After great labour men like to come to a conclusion. I may draw the following:—

I consider the Celtic nations made up of various people, mixtures of men who came to Europe before them as well as after them.

The pure Celts were too little concentrated, perhaps, to form a nation anywhere as great as any of the present so-called Celtic nations, and give it permanence.

They were sufficiently strong-minded to stamp their language and institutions on several nations who were themselves previously mixed.

We find that Celtic nations, as they are called, are unlike each other in appearance, and the title is really misapplied.

The languages, too, are evidently very much modified from the original Celtic, because they are the remnants in part of the various pre-Celtic tongues which were overpowered by the true Celtic.

Types remain long in nations. Let us imagine the high-minded heroes of Erin, whether we take them from the older writings of the natives or when transformed into Christian missionaries, let us imagine them received with joy over all Europe, ruling like kings wherever they came, is it possible for us to imagine that it is the same race that lives in parts of Ireland unable to read or to write, unable to devise an intellectual mode of advancement, idling amid poverty and brutality, and not in the course of many centuries absorbing the intellectual life which is glowing around them? There is only one explanation visible to me. Ireland had a great aspiring dominant race, probably very few comparatively of them. These had many noble qualities not necessarily connected with Christianity; that same race had at a later period men of Christian faith that showed their power in this direction also. When this dominant race had accepted the civilisation of Europe and taken its position there, the older races were left still farther behind, because they had no native sympathetic leaders, and they had no capacity even for wishing to rise. Such, at least, is my explanation of the diversity among people called Celts, and the still greater diversity among men called Ayrans, whilst application is made of the theory to account for the condition of Ireland as in the time of its earlier native writers and its position at the present time. The whole gives us also a remarkable view of the permanency of character in times at least when communication was difficult.

When considering this wonderful permanence of race in so many cases,

the difficulty arises as to the origin of new races. They come out of utter darkness, although we see partly the material out of which they grow, the new spirit which actuates them and makes them take a prominent place in the world, is as much a mystery to us as if the whole race, body as well as spirit, came down from the air. The new race is evolved by laws unknown, but it is evolved; it does not come with its civilisation all ready, it comes only with its capacity to advance, the power was previously prepared, as we see in the rough northern nations coming into Europe, ignorant to the utmost, but with minds ready to learn, whilst many other nations cannot be persuaded to be led even to their benefit.

These simple considerations enable us to free ourselves from a great deal of Celtomania, and also from a Teutomania which is coming in equally rampant. It accounts also for any number of Celtic dialects. Under them must lie the pre-Aryan languages according to this reasoning I shall not go farther on this track, being desirous of keeping the diversity of Celtic nations clearly in view. The word "Celtic" has had no ethnographic meaning for centuries, and has none at all at present. The true ethnic meaning has been lost; at present it is a language characteristic only.

This ought to make us cautious in believing the sweeping assertions of ancient writers as to conquests. Gothic nations, too, are not easily swept away either by force of arms or by intermarriages. We can explain the permanence of the language, especially in the north of England, only by the permanence of the people being greater than we are told. It is still more remarkable in Greece, where the language still remains. In Spain and in Portugal we still find a strongly Latin language. When, however, we come to a country more Celtic, with a position more readily influenced by migration, we see the language broken down in a very peculiar manner. It becomes abraded, softened, cut, and in many curious ways altered, so that the sound is thoroughly changed. In hearing French spoken, no one would think of Latin; but on hearing Italian, an old Roman would at once recognise a dialect.

It is a curious thing that in French the consonants have given way most in pronunciation, although appearing in writing. They are thrown away recklessly; and vowels, which one would think least permanent, live longest. This is also observable in the Celtic language of this country.

It will be seen that it is by looking at the present people that I am led to these conclusions, and I may sometime go still further into details. We have been taught that we had in Scotland a great Kymric population, purely Kymric in the south and partly so in the Pictish lands of the north. I see no proof in Dr Beddoe's very valuable work on the stature and bulk of man in the British Islands that any similarity remains, although we are told that in the south-west a Celtic tongue remained till modern times. It can only be by careful examination that definite conclusions can be drawn, but it seems to me that I can tell a Welsh from any other so-called Celtic person, showing, as I think, that the Britons were always different from the others in this island. I imagine that I can tell a person from the west and east of Scotland south, showing, as I think, a more Teutonic population in the east, which would indicate a more Celtic population in the west; and yet I do not find that it approaches to that of Wales, although I think I see the latter population far north into Lancashire, although not in Cumberland. Amongst the many guesses on this subject I may be allowed to give an opinion, half-founded, I may say, because it is not based on exact data taken by me, although I think it is in accordance with Dr Beddoe's most valuable work and some travelling; that is, that the Welsh population did not form the chief part of south Scotland, but was there for a certain time as a dominant power only. As such it is easier to imagine them leaving the place thoroughly.

I see that Mr Rhys, in his small but most valuable work on Celtic Britain, brings in, as I had previously done, prehistoric races, and he goes more into detail of districts. My small collection of photographs shows to me more clearly than I had imagined a remarkably mixed race in north Scotland; but I still look to the east, about Aberdeen and Forfar perhaps,

as having a peculiar race, not very early, but imported after Celtic times, and more uniform in character than what are now called Celts.

In reading again Professor Max Müller's lectures on language, I am inclined to observe that the dialects which he seems not to be able to account for in Aryan tongues may, very readily, have found an entrance by mixture into prehistoric men, and this is another reason for speaking again to the point so long dwelt upon.

In a previous paper I ventured to speak of the sound of the voice, independently of the language, as a subject of study, and I think it will offer much information, but I have been hitherto unable to add anything to the subject.

I have drawn conclusions from the present condition of the nations called Celtic, and in doing so am inclined to observe how long and steadily nations and districts preserve their characteristics. In other words, national characteristics last long; when we find them we must look on them as messages from very distant times. This is the chief point of my present paper. Men have remained little changed in most countries of Europe, and even when apparently destroyed, they have come up again as the grass, although there are districts, and much of England is a fair example of them, where the continuousness and ferocity of the invaders has made it not very easy to perceive the British remnant in the mixture.

II.

ON THE ORIGIN AND SIGNIFICANCE OF THE LEGIONARY SYMBOL OF
THE TWENTIETH LEGION OF THE ROMAN ARMY IN BRITAIN.

By JOHN MUNRO MACNAB, F.S.A. Scot.

Of memorials of the Roman army in Britain the inscribed and sculptured stones set up at sundry times in its northern districts are of special value, as furnishing historical material where none other exists. The memorials of this kind are those mainly of the second, sixth, and twentieth legions, of which those of the twentieth are, for our present object, the most important.

This legion arrived in Britain in the reign of the Emperor Claudian, when the conquest of Britain really commenced, A.D. 43; and where it was resident during nearly the entire period of the Roman conquest and occupation. The command was given some time thereafter to Agricola, the celebrated Roman general, and, after a time, governor in that island, and the share it had in the conflicts with the Britons are recorded in the writings of his son-in-law Tacitus. From the time of the great battle with the Caledonians at the Grampians, however, we trace its operations only in the inscriptions in stone left us by its soldiers.

Owing probably to the unsettled nature of the occupation, no lettered legionary stones that have yet been discovered can with certainty be assigned to an earlier period than that of the construction of the great barrier wall and double earthen ramparts, bearing the name of the Emperor Hadrian, raised during A.D. 120 and subsequent years; or, in other words, during the seventy years, more or less, after the invasion in the reign of Claudian.

To the observance in Britain, as elsewhere, on the part of this great pacificator, of the practice of making treaties with the natives by sacrifices of territory, and in withdrawing from the line of the forts planted

by Agricola across the isthmus of the Forth and Clyde, so as to inspire confidence in his moderation, is, without doubt, owing the fact, that on the sculptured and inscribed stones set up in the line of this barrier during its construction, no traces of conflicts with the natives having taken place have been found. Several stones bearing its name demonstrate the presence and labours there of the twentieth legion. One of these, an altar dedicated to Hadrian himself, is an expression of admiration and reverence for his genius and virtues. On no stone of a mural character pertaining to the original erection is there to be found the legionary symbol to which reference will afterwards be made. In the latest work on this subject, *Lapidarium Septentrionale*, by Dr Collingwood Bruce, out of twenty stones found in the region of the wall, only six occur having that symbol, and five of these are placed upon the out or supporting stations north and south of it, and these either constructed or rebuilt at a later period; while the sixth, No. 264 of Dr Bruce's work, is placed on the battlements on a superimposed sentry box, evidently marking a subsequent repair; thus showing that at the time of the construction of the Hadrian barrier the symbol referred to had not been appropriated to the twentieth legion.

The peace secured by the magnanimity of Hadrian did not long continue. After the property qualification had been laid aside, the Roman soldiers, as Gibbon informs us, "were, like the mercenary troops of modern Europe, drawn from the meanest, and very frequently, the most profligate of mankind;" and the auxiliaries who, it appears, chiefly garrisoned the camp (which in reality the barrier composed) were conquered barbarians subjected to military service, and equally disposed to rapine and plunder.

If therefore we find that, about twenty-five years after the completion of this defence, the tribes of the Brigantes, occupying its northern frontier, broke through and committed great destruction of its erections, we are not to assume that the attack was entirely unprovoked.

To punish these outrages, Lollius Urbicus was commissioned, A.D. 139, by the then reigning emperor Antoninus Pius, who not only effected this,

but also resumed possession of the territory previously abandoned by Hadrian, and commenced the construction of the earthen rampart on the lines of the chain of strong forts built by the army of Agricola, which is known as the Antoninian Barrier, on the northern isthmus between the Clyde and the Forth, and thus the Roman armies were again brought face to face with the Caledonian Picts. Instead, however, of the uninterrupted labour of the Hadrian defence, the inscribed stones of the Antoninian rampart reveal a constant struggle between the builders and the natives. From Castlehill to Castlecary, and from Castlecary to Carri-den, the stones left by the workers tell of fighting and of victories won from the inhabitants. Groups of captives, kneeling bound and about to be cut down, figure on the carved monuments. In these labours and contentions a vexillation of the twentieth legion took a prominent share.

A vexillation, according to Smith's *Dictionary of Greek and Roman Antiquities*, is composed of soldiers who, having served in the legion for sixteen years, became *exactorati*, that is, freed from the heavy burden of the daily exercise in camp, but continued to serve, in company with the legion, under a separate vexillum or ensign, until they received their full discharge and territorial or pecuniary retiring reward. The number attached to each legion was five or six, or, according to others, eight hundred men.

A stone found at Whitley Castle, about twenty miles south of the Hadrian barrier (where are the ruins of a supporting station), some years ago, now lost, but figured as No. 743 of the *Lapidarium Septentrionale*, enables us to trace their route from the legionary headquarters at Chester northward. It contains the letters *Vex. Leg. XX VV Refec.*; showing that on their way they rebuilt this supporting strength destroyed by the invading Brigantes. The absence of the symbol denotes that up to this time it had not been employed by them. The portion of the Antoninian rampart assigned to this vexillation was that extending from near Dumbarton to Castlecary alternating with a division of the second legion, this being the quarter inhabited at that time, according to all authorities, by the Caledonian Picts. Here for the first time we meet on their vexillary

stones with the figure which ultimately became the symbol of the entire legion, viz., the figure of a boar, represented as running away. Of five stones recovered pertaining to this vexillation, four contain this figure, and the fifth, evidently unfinished, has a space left within its border in blank, in the space and of the size assigned to the figure in the other four.

That the insertion of this figure in these stones had reference to repulses of the Caledonian Picts seems to be the opinion of all the writers who have described them. Without more than reference to Camden and Horsley, we may quote Sir Richard Colt Hoare, an English antiquary. In his edition of the *Itinerary of Archbishop Baldwin through Wales*, by Giraldus de Barry, published in 1806, in giving an account of the carefully engraved stones of the twentieth legion (connected as was that legion with Wales from their headquarters at Chester) contained in his book, and of the stone numbered 22 of these engravings, a stone belonging to the first fort on the west end of the rampart, now in the Hunterian Museum, Glasgow, Sir Richard says as follows :—

“The sculptures on it are very curious. It has a pediment supported on two fluted Corinthian pillars. On the face of the stone is a Victory, leaning her left hand upon a globe, and holding under the same hand a palm branch. The right hand rests upon a laurel wreath, enclosing an inscription commemorating the work of the [vexillation of the] twentieth legion. Underneath the Victory on the base of the stone is a boar in the act of running, which was probably an emblem of the northern districts of Caledonia.”

In describing another stone on this Antoninian barrier, engraved in plate ix. fig. 9, of Stewart's *Caledonia Romana*, the author says :—“From behind the inscriptions the figure of a boar is seen advancing towards a tree that fills, in very diminutive proportions, the opposite corner of the stone;” and adds, “here again is the Caledonian boar present, as he frequently is, where the twentieth legion is mentioned.” It may be remarked here, that the tree in the distance may indicate *Caledones*, the British name given to them as inhabiting the woods.

Besides the stones pertaining to this vexillation of the twentieth legion, there are others set up by the second legion on the line of this barrier, also expressive of victories, two of them having upon them the figures of a Dolphin and a Pegasus—animals pertaining to Roman mythology. Their positions on the stones, with *vexilla* or ensigns of legionary cohorts close to them, show that there is no reference by their presence to the native tribes intended. On nearly all the stones pertaining to this legion figures of captive natives appear, whilst none occur on the stones of the twentieth legion, which legion appears to have selected rather the symbols of victory and the emblems of the retreating tribes.

But the occurrence of the figure of a boar on any number of vexillary stones would not constitute that figure a legionary symbol. At Lanchester, in the county of Durham, however, there is a stone, No. 28 of Sir Richard Colt Hoare's engraved copies, belonging to a later period, which proves the adoption of this figure by the entire legion as their legionary symbol. Its inscription (*Leg. XX VV Fecit*) "is enclosed within a verdant wreath, supported by two winged Victories standing upon globes, and bearing palm leaves in their hands. Within the wreath (says Sir Richard) is the usual symbol of the boar. Lanchester is sixteen and a half miles southward from the point where the line of Watling Street crosses the wall of Hadrian. "It is," says the *Lapidarium Septentrionale*, "one of the stations mentioned in the *Notitia* as having been "sub dispositione Ducis Britannicorum," and outside of those included as *per linium Valli*, in that document." It forms No. 703 of the woodcuts in that work of Dr Bruce, who says—"This large slab was probably placed over the gateway of the station;" and he states circumstances that make it appear it was built by this legion in the reign of the Emperor Gordian A.D. 238 to 254, at the same time as the one at High Rochester, on the north side of the wall, which latter contains two stones of the vexillation of the same legion; one having on it the word "fecit," and the other the symbol of the boar. These and other additional out or supporting stations may, therefore, have been added to the earlier supporting defences of the wall about this time, in consequence of irruptions of the northern tribes,

and the double victory on the Lanchester slabs represents victories over the Caledonians. From this time onward, it appears that the figure of a boar without inscription or other mark, wheresoever found sculptured on a stone in localities known to have been in the occupancy of the military forces of Rome, is held to establish the presence there, at some time or other, of the twentieth legion, or of its vexillation.

It was a peculiarity attributed to the Caledonian Picts, that they marked, punctured, or tattooed their bodies with figures of animals. Dr Skene notices, in his *Celtic Scotland*, that the Roman soldiers of the army of Severus regarded with wonder the forms and figures of animals presented on the bodies of their Pictish foes. He quotes from Irish writings of the earliest period the name *Cruithnithe* (the meaning of which, he says, is forms or figures) as given to the Picts as well when settled in Ireland as when migrated to Scotland. Dr Stuart states as his opinion that the aptitude of the Picts to represent animals in their sculptured monuments (which aptitude he asserts is one of purely local development) arose from their habitual practice of puncturing their bodies with figures of animals. Again, in various of the sculptured stones found in Pictland, there are figures of boars, viz., on that at Keilor, a stone found undisturbed standing on a cairn covering cists; on that at Knock-na-Gael by Inverness, near to the spot supposed to have been the residence of that powerful king of the Picts who was visited by St Columba: the Boar stone of Gask; and the stone at Golspie churchyard, previously in the church at Craigton. The last has the form of a cross on the reverse face; and the stone of Gask, showing various boars looking with eagerness and emotion towards the extended arms of a cross;—all these circumstances are indicative of an intimate association, apparently of a religious nature, in the sculptures of the Pictish people with the figure of a boar.

From the foregoing statement it appears—(1.) That the origin of the symbol of the twentieth legion dates from the encounter of its vexillation with the Caledonian Picts during the construction of the Antoninian rampart, and must therefore have reference to a similar figure conspicuous

to their vision in use among that people. Some writers state that, when fighting, they were naked (which is suggested by the captives on the engraved stones being represented as nude figures), and this conspicuous object, emblematic of their whole nation, may at first sight be assumed to have been exhibited on their naked bodies; but, for reasons to be given afterwards, it is more likely this conspicuous object was carried as a religious emblem or banner in their battles. (2.) That they did exhibit the punctured forms or figures of animals on their naked bodies. The expression is in the plural, and may only imply figures of one animal on each individual of their forces, or of one more conspicuous animal borne by each individual along with others, of smaller size, indicative of the tribe or clan; and also "the ensigns of honour," which Tacitus, in describing the gathering of their forces on the eve of the battle of the Grampians, refers to in the following terms:—"The youth of the country poured in from all quarters, and even the men in years, whose vigour was still unbroken, repaired to the army, proud of their past exploits, and of the *ensigns of honour* which they had gained by their martial spirit" (xxix.). The chief or monarch of the Picts was so distinguished. According to a statement by Dr Stuart in his *Sculptured Stones of Scotland*:—"In the Chronicle of the Scots and Picts, thirty of the earliest of the kings of the latter nation are referred to under the single designation of *Bruidhe*," which Mr Stuart supposes was a general name, like that of Pharaoh among the Egyptians, for ruler. This name signified *Acu-punctata*, or punctured with an iron instrument according to Mr Hibbert. The similarity of the name Bruidhe to the old Scotch word Brodie, in sound as in signification,¹ appears to confirm this opinion. (3.) That

¹ *Brodd* (in Glossary to Gavin Douglas's Translation of Virgil), to prick; (A.-Saxon, *Brorde*, *punctus*;) *Bröder*, French, to puncture with a needle any stuff so as to form any figure thereon; *Broder*, Sp., to embroider. The lands of Brodie, in Nairnshire, are said to have been called after an ancient family of that name, contrary to the usual practice in Scotland. "Its antiquity" (says Shaw, in his *History of Moray*) "appeareth from this, that no history, record, or tradition (that I know of) doth so much as hint that any other family or name possessed the lands of Brodie before them, or that they came as strangers from any other country. I am inclined to think they were of the ancient Moravienses."

the figure of a boar occurs on sculptured stones in Pictland during periods extending from the age of cairns with cists, of stone circles, and of cup-marked stones down to that of Christian crosses. The Boar Stone near Inverness, for example, has a cup-mark on it "with a concentric double ring round it, and connected lines forming what is technically known as the single spectacle ornament" (*Proceedings*, vol. xvi. p. 387), thus associating itself with the earliest period of sculptured stones. The Keilor Stone also has similar earliest forms, and is itself directly associated with an undisturbed cairn; yet in the so-called Boar Stone of Gask these animals are engraved *within* the panel containing a carving of a cross; and the Craigton Stone is probably an early sculptured emblem stone used at a later period for the delineation on its reverse of the Christian symbol.

In endeavouring to ascertain the significance of this legionary symbol, we turn at once to the writings of the accurate yet concise historian who narrates the first encounters betwixt the Roman armies and the Caledonian tribes. It is not necessary to remark at the outset that Tacitus, in his two great works, *The Life of Agricola* and the *Essay on the Manners of the Germans*, both, as nearly as can be ascertained, written in the same year, makes a double reference to the apparent identity of the Caledonians and the Germans; in the former work, as respects their large limbs and ruddy hair, and in the latter in respect of the similarity of their languages; for, in describing the manners of the Aestians (a German tribe of the confederated nations called Suevians who lived on the shores of the Baltic) as having the same rites and habits as the other Suevians, he adds—"lingua Britannicæ proprior," viz., the dialect of this people resembled rather that of Britain than the common speech of the country. Now it was the practice of the Romans, we are told by Gibbon, to designate all peoples subjected to their rule, in regions only partly in their occupation, as provincials, as with Cæsar in Gaul, and other writers in reference to Britain. When Tacitus wrote these words the whole island, except the portion occupied by the Caledonians, was under subjection to Roman law, and was known only as "Britannia Pro-

vincia." in which, as in other provinces in the west, the exclusive use of the Latin tongue in all matters, civil or military, as Gibbon informs us, was rigidly maintained. Consequently, when he speaks of "*lingua Britannicæ*," he means the language of "*Britannia Barbara*," the name (Dr Skene assures us) given to the unconquered portions of Britain.

It is to these people (the Aestians) then that we look as described by Tacitus for an explanation of the significance of the boar as the symbol of the twentieth legion of the Roman army.

In his treatise on the *Manners of the Germans*, Tacitus, on several occasions (ix., xl., and xlv.) refers to tribes of the Suevian confederation who worshipped the Earth under the figure of a woman; whom they designated, he says at one place, "the mother of the gods," and consider her as "the common mother of all" (xl., xlv.); and elsewhere in the same work he calls her Isis, after the Egyptian goddess, having similar attributes; but of whom, he says, the local name was Herth, and its Latin equivalent Terra. On account of some of these Suevian tribes having, as a symbolical representation of the goddess, the figure of a ship, Tacitus regards the superstition as of foreign origin, and probably hence the name of Isis bestowed on her by him. But the Aestians, and, if we understand him aright, the Aestians alone, of all the earth-worshippers in that region, had for a special symbolical representation of this deity the figure of a boar. "*Matrem Deum venerantur*," says he, "*insigne superstitiones formas aprorum*," which they bore "gestant" or carried. This figure of a boar, he adds, they held as a protection equal to arms or armour—"Id pro armis omnium tutela." To bear it was equivalent to worship of the goddess, "*securum Deæ cultorem*," and it was carried in front of their armies or "*inter hostes præstat*." "To impress on their minds," says Tacitus (vii.), speaking of the Germans collectively, "the idea of a titular deity, they carry with them to the field certain images or banners taken from their usual depository, the religious groves."

Whether the adoption of the figure of this animal as the symbol of the worship of the goddess may have been owing to the practice among boars of scraping the surface of the earth in search of acorns and tubers

being regarded as acts of devotion towards their common divinity, will ever be matter of conjecture. It is, however, a habit in pagan mythology to attribute to inferior animals powers or instincts allied to the supernatural. The worship of the goddess Earth, as described by Tacitus (xl.), has nothing in common with that of the Egyptian Isis, except in that most remote epoch before it became associated with licentiousness of any kind. The rites are simple, solemn, and mysterious. No image of the goddess is permitted. At certain times she is supposed to visit the earth at places dedicated to her, and, *being invisible to all*, to make a progress in her sacred chariot, when all wars cease, general rejoicings take place, and festivals are observed along her route. When supposed to be satisfied with her visitation, she is reconducted by direction of the priest to her sanctuary, her chariot being drawn by cows.

Besides the employment of the symbol of the boar, there are other indications of the worship of this goddess by the Caledonian tribes. An altar stone found towards the close of the last century, in the line of the Antoninian barrier (one of four sunk in a pit near to the rampart itself), erected by Cocceius Firmus, a centurion of the second legion, bears the following inscription :—

GENIO
TERRAE
BRITTA
UNICAE
M COCCEIUS
FIRMUS
C LEG II AUG.

Sir Richard Colt Hoare reads these words as a dedication to the genius of Britain. But this would be contrary to various precedents. In his own collection of copies of stones of the twentieth legion, when the genius of Britain is referred to, the expression used is *genio loci*; as in the altar stone, numbered xxx., discovered in Forrest Street, Chester, in 1653 (which in the time of Horsley was in the possession of Mr Prescott).

of the inscription on which Sir Richard gives the full text, showing that two persons named Longus, father and son, natives of Samosasa, a city of Spain, dedicated that altar to the "genio loci" on behalf of the reigning emperors.¹ Where the deity of a particular region or people is referred to on a dedicatory stone, the name of the land or of the people is alone given, and the surplusage "Terra" never used. The inscription of Cocceius Firmus must therefore read—To the Spirit (Genio) of the Earth of the British people; or to the Spirit worshipped in Britain called the Earth.

As before stated, the Britain of the centurion stationed at the extremity of the Roman province, was the Britain beyond that Province; *id est*, the Caledonian Britain. In the same pit, by the same Cocceius, are altars to various special or local powers, as Deities of the Fields or *Campestres*, Genius of Horses, Goddess of Victories, &c.

It is well known that in course of ages the worship of the Earth as representing all-producing Nature, became associated with that of other spirits, called, in the mythology of these times, her children by her husband Oceanus. Something of this kind appears to have taken place in Pictland. Nearly four centuries elapsed from the time when Tacitus wrote to that of St Columba and the earliest Christian writings in which the paganism of the Picts is referred to. In these writings, as their import is given by Dr Skene (*Celtic Scotland*, vol. ii. p. 109), the character of the paganism of the Picts and Scots is thus described:—"The objects of the popular belief were the personified powers of nature. Mysterious beings who were supposed to dwell in the heavens or the earth, the sea or the river, the mountain or the valley, were to be dreaded or conciliated. These they worshipped and invoked, as well as the natural objects themselves in which they were supposed to dwell." It appears, however, that the powers of these "Earth gods" (as Dr Skene calls them) were equally claimed by the early Pictish saints; and the spirits of the fountains were made to act as conductors of blessings and workers of

¹ "The emperors," says Sir Richard, "on whose account it was erected, were probably Dioclesian and Maximian by the titles of *domini nostri* joined to *invectissimi*."

miracles in answer to Christian prayers and vows—a superstition that is scarcely yet extinct, as witness the fountain on Loch Maree. The stone circles were substitutes for the groves where the great assemblies of the Aestians were held; and the figures carved on the encircling stone rings were by the monks ignorantly called idols as supposed representations of natural powers. Dr Skene inquires whether the cup-shaped markings on the outer stone circles may not be the figures referred to.

The engraved stones among the Picts represent nearly all their human figures as draped with mantles like the Germans described by Tacitus who refers to those of the chiefs as secured by brooches. The naked figure shown on the stone at Arniebog referred to in the Society's *Proceedings* (ix. 474) shows the hair to be coiled up into something like a knot, which Tacitus says is a special characteristic of the Suevians; and the frequent occurrence of combs among the relics of Pictland are conformable to the care to braid their hair and tie it up, which he ascribes to this people. Tacitus likewise informs us that the Aestians gathered amber in the shallows and on the shores of their territory, and were the only people who did so; also that they traded in it with the Romans. Amber has been found in several places occupied by the Picts, as at Aberlady and in Ayrshire. A so-called necklace of amber beads found in a cist, in a barrow at Huntiscarth, Orkney, is described and engraved in vol. iii. of our *Proceedings*, p. 183. This monopoly of amber by the Aestians led to great interest being taken by the Romans in this people. Pliny informs us that "Nero sent a Roman knight to purchase great quantities of it on the spot where it was produced."¹ Tacitus says the natives "pile it in great heaps, and offer it for sale without form or polish, wondering at the price they receive for it."² The pieces of amber buried in the Orkney barrow were of unequal sizes and shapes and rude. The metal of the thin plates of gold found in the same cist, a metal which, Tacitus says, was unknown to the Germans, except in the rare case where it was taken in barter for commodities, may probably have been got in exchange for the native amber. Another coincidence remains to be noticed.

¹ *Nat. Hist.*, xxxviii. 11.

² *Germania*, c. 45.

Tacitus must either have travelled in the interior of Germany himself, or been in intercourse of a confidential kind with some intelligent observer (like his friend Pliny) who had done so; for his descriptions are minute and accurate, and his method so perfect, that his materials must have been abundant, seeing they are so skilfully arranged. For this reason, the true value of his work only comes out after careful study of its plan. The following account of the subterranean dwellings of these people is not only an exact description of similar constructions in Pictland (as they have been given in our *Proceedings* on various occasions), but furnishes an explanation of the purposes of their excavation so simple and natural as to render discussion of the subject unnecessary (xvi.) :—" Besides their ordinary habitations, they have a number of subterraneous caves, dug by their own labour, and carefully covered over with soil; in winter their retreat from cold, and the repository of their corn. In these recesses they not only find a shelter from the rigour of the season, but in times of foreign invasion their effects are safely concealed. The enemy lays waste the open country, but the hidden treasure escapes the general ravage, safe in its obscurity, or because the search would be attended with too much trouble."

In the year 69, about twelve years before the Romans had even seen the Caledonians, they heard of a strange people to the north who lived chiefly on fish and milk. The most ancient kitchen middens and caves, and the numerous crannogs on the lochs, show remains of fish bones in quantities, confirming the statement as to the former food; and fishing implies familiarity with the sea, which is noted as a specialty of the Picts. Now, the Aestians were of necessity often in the water in search of amber; and it is recorded of the entire confederation of the Suiones, of which they formed part, that they literally lived in the sea, and their boats are described by Tacitus as double-prowed, corresponding to the long boats of the first Pictish arrivals referred to in Bede.

It has been asserted, on the authority of Tacitus, that the Caledonians were destitute of corn; yet twice in the speech of Galgacus, Tacitus makes him refer to this cereal—once as being plundered or demanded as tribute

by the Romans, and a second time in a declaration that there was not arable land in their country to yield corn sufficient for themselves and also for the Romans. No doubt, the native British tribes did not observe any corn in their visits to the country, because it was carefully concealed in their artificial caves. And of the Aestians Tacitus remarks—"In the cultivation of corn and other fruits of the earth, they labour with more patience than is consistent with the natural laziness of the Germans." The earliest writings of the Irish chroniclers often speak of the skill of the Picts "as artificers and cultivators of the soil."

Finally, the thorough knowledge possessed by Tacitus of German matters, is shown by his giving the native names of various objects—as *fram*, for javelin, and the local names of deities and heroes. In the case of the Aestians (whose language is, he says, like that of the British), the name for the goddess Terra he gives as Herth; the name Aestians means Easterns; the amber, he says, they call Glasse,—all words more or less Teutonic. The last word Glasse¹ is Scotch in the truest sense, being familiar in the west of Scotland as the designation of a substance like semi-transparent amber, sold to young people, composed of molasses boiled with yolk of eggs; and the word glass, in all northern languages of Europe, designates a transparent substance.

As the true purpose of history and archæology is to learn whence we came and who were our ancestors; and as the theory of the Celtic origin of the Picts our ancestors, notwithstanding the laborious investigations of Dr Skene and others, is beset with difficulties; it is hoped that a re-examination of the question is not foreclosed in the Society of Antiquaries of Scotland, but rather may extend to other aspects of the problem. The fringe of the curtain that has long overshadowed it has only so far been slightly raised.

¹ Glassie. The word in Tacitus is *Glassum*, having the usual Latin termination of gender. The rendering given here is that of the translation of Murphy in Valpy's Collection, 1831.

wide at top and 6 feet deep on average. On the outer and inner edge of ditch are traces of an earthen breastwork or wall, standing from 12 to 18 inches above the ground surface and 3 feet wide. The "fort" measures inside the ditch 84 feet from east to west and 64 feet from north to south. Near the middle is a raised oval-shaped piece of ground, raised 18 inches, as shown on plan and section. If the ditch were filled with water, it must have been conveyed a long distance, as no water in the immediate vicinity is available by gravitation.

The Standing Stones, or *Clach-an-t-Seasaidh*, are about three-quarters of a mile south-east of the "fort." They are two in number, one on either side of the road which leads from Muir of Ord to Beauly. They are supposed to be remains of stone circles, but this is rather doubtful, as they look more like monolithic monuments raised for some brilliant event, although the circumstances are in obscurity. They are associated with the superstitious belief in Coinneach Oidhar the Brahan seer's prophesy, "that the raven will drink from the top of Clach-an-t-Seasaidh its full of the blood of the Mackenzies for three successive days."

Cille Chriosd.—About one mile north of the Standing Stones is the restored chapel of Gilchrist, "the church of Christ," so famous for the tragic deed called the "Raid of Gilchrist." The story is, that the Macdonells of Glengarry, having a feud with the Mackenzies of Ross-shire, arrived one Sunday morning at Cille Chriosd, surrounded the little thatched chapel (in which the Mackenzies had assembled for morning devotion), bolted the door, and set fire to the building, their piper playing an extempore pibroch, which, along with the fiendish yells of the perpetrators of the diabolical deed, served to drown the cries of their victims. The Mackenzies, however, were speedily avenged on their enemies.¹

David's Fort.—Following the county road leading from Muir of Ord to Dingwall for about $2\frac{1}{2}$ miles, we reach "David's Fort,"² in Conan Wood, below the farm of Bishop Kinkell, or about 300 yards south of the rail-

¹ See Anderson's *Guide to the Highlands*, pp. 91-93.

² One old man knew the place by the name of "Tigh Diabdh," or "The House of David."

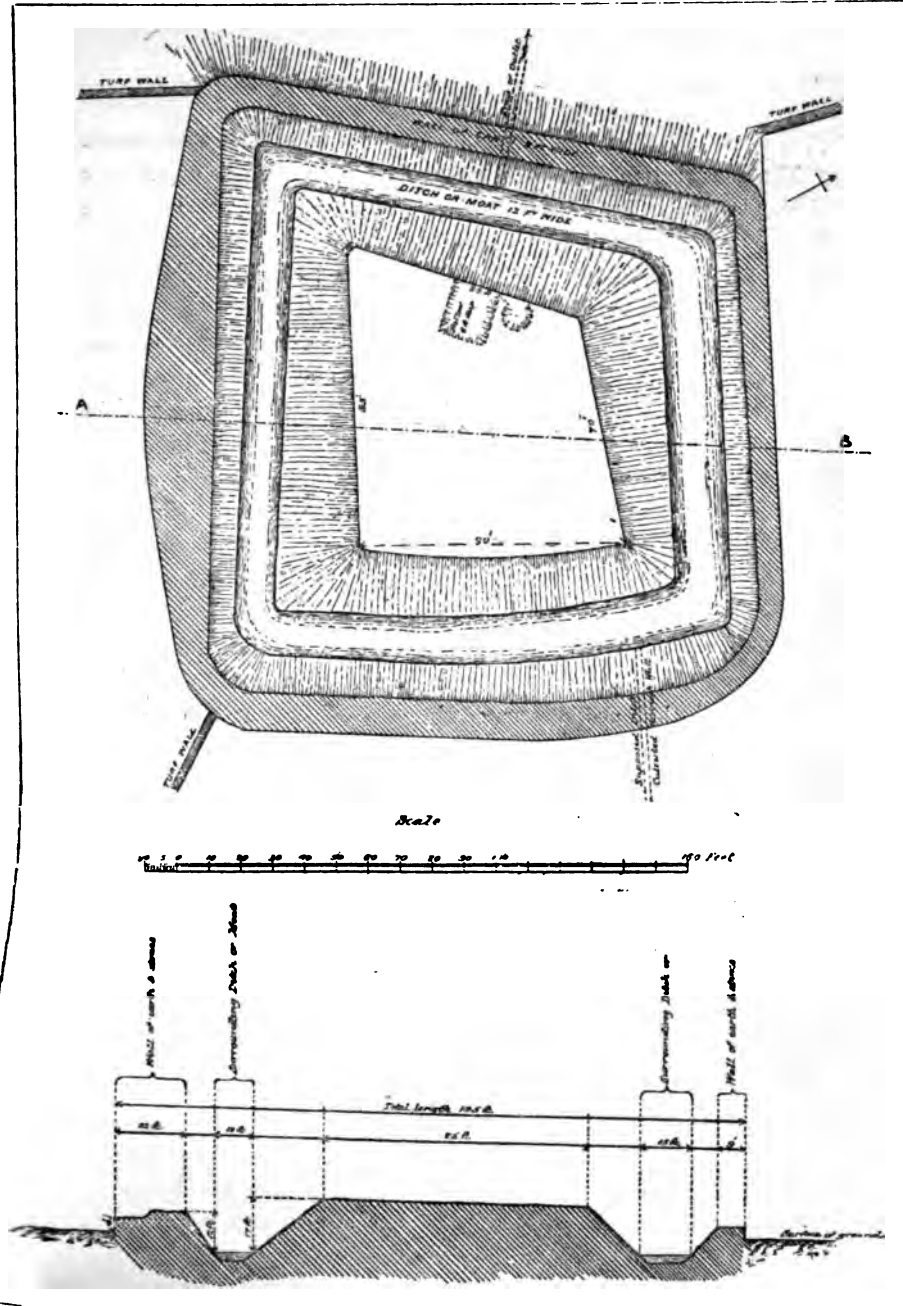


Fig. 2. Ground Plan and Section of David's Fort, in Conan Wood.

not the work of any people belonging to prehistoric times. I have heard it ascribed to the Romans; I have also heard it suggested that it may have been the camping place of one of the independent companies of which the 42nd or Black Watch was afterwards formed; and also I have heard it said that it was a defensible cattle fold, into which the bestial were driven on the rumours of an approaching raid, but I don't think it looks like this. It seems to me the work of educated military engineers."

I have never heard of any analogous structure in the northern counties of Scotland, and it would be interesting to have comparison with any cognate constructions, should any exist in other parts of Scotland.

Remains at Conan.—Above Conan railway station, $1\frac{1}{2}$ mile in a north-east direction from "David's Fort," is a circular structure. The remains are situated in a clump of trees in the angle where the station road joins the public road. The structure consists of four concentric rings, with two wings of outer wall branching southward, tangential to the outer wall or ring. The centre is 50 feet in diameter, surrounded by a dry ditch 9 feet wide and 2 feet deep; then a wall or mound of earth 12 feet wide, also circumscribed by a ditch or hollow 6 feet wide and about 1 foot deep. Outside this ditch is the outer wall, which is 3 feet wide, and standing 3 feet above the cultivated lands around it. The middle or inner wall seems to have been formed of the matter thrown out of the ditch, and the outer wall is formed of earth, with a considerable number of stones intermixed. The structure is called a "fort," but this it could not possibly have been, as it is on a comparatively level place, and in no respect commanding an imposing situation. It is, however, of almost identical construction with Dùn Mòr, above Beaulieu, where Montrose is said to have made an encampment.

The Conan remains probably represent a place of prehistoric sepulture. This is also on the property of Sir Kenneth S. Mackenzie, who also believes it to be the remains of an ancient place of burial, and has saved it from the sacrilege of the plough.

Mr R. A. Mackintosh, teacher, Conan, writing me on the subject in 1881, says, . . . "The only tradition I ever heard regarding it was,

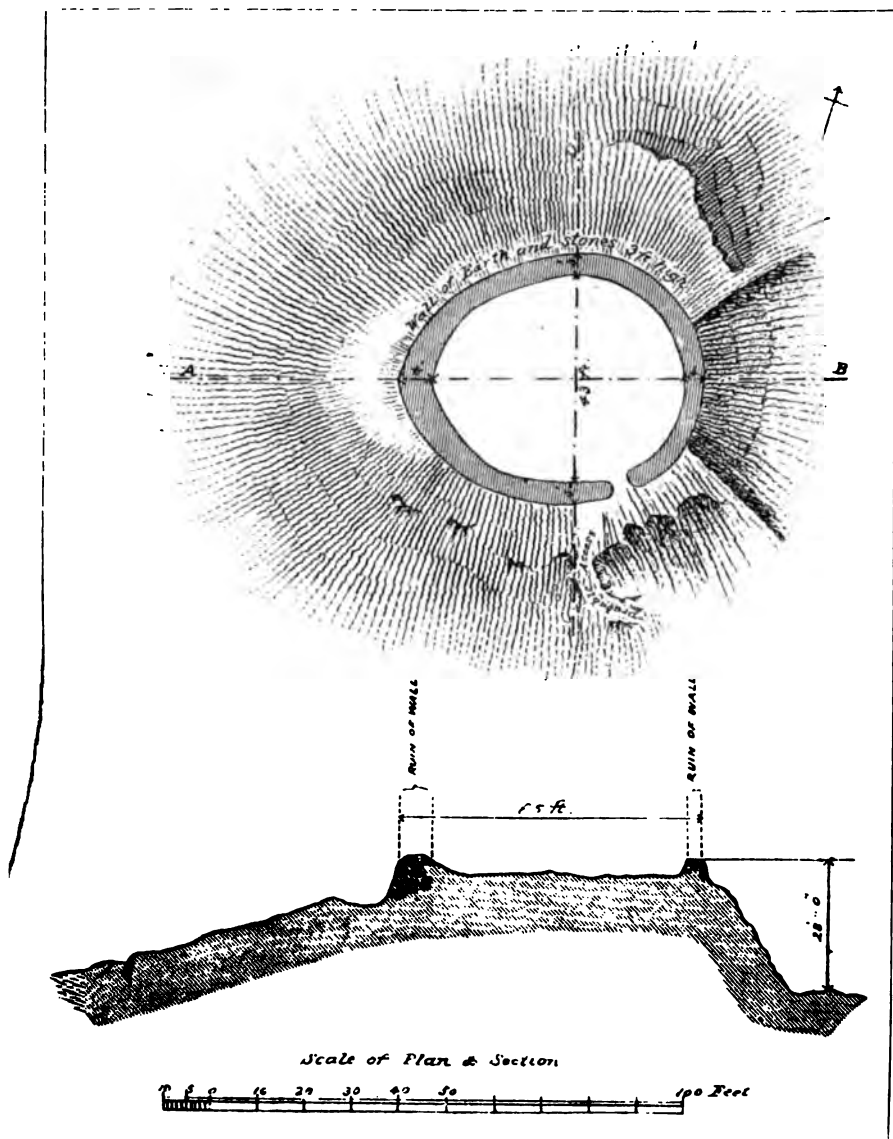


Fig. 4. Ground Plan and Section on the line A B of Craig-a-Caistail.
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while talking some years ago with an old man at the place, his mentioning that St Bridget or St Bride was buried there. I would not, however, place much reliance on this."

East from Conan, in the Ferintosh district, are many interesting stone circles, forts, and mounds, which may be referred to at some future date.

I annex a plan and sections of a small earth fort at Loch Lundie, near the Ord Hill of Kessock (figs. 4 and 5).

"*Craig-a-Caistail*," or *Loch Lundie Fort*.—It is situated on a rocky knoll, the highest point of a rugged anticlinal ridge of conglomerate called "*Craig-a-Caistail*," or the "rock of the castle." Geologically this ridge is most interesting, with its steep, rugged sides, having a deep marsh on the north side, occupying a long narrow gully, and terminating at the east end with masses of boulder clay.

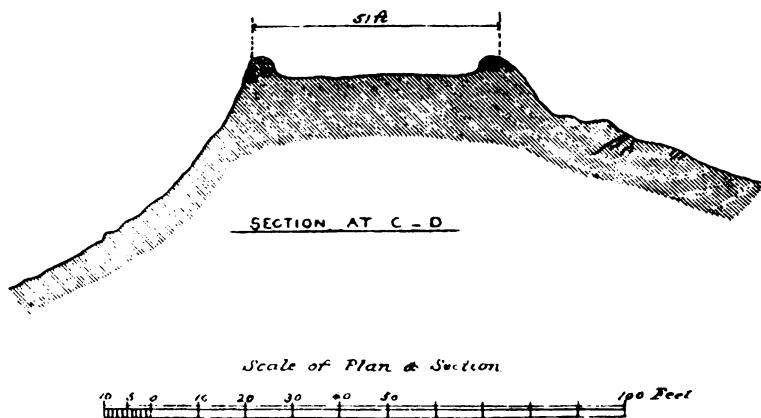


Fig. 5. *Craig-a-Caistail*. Section.

The fort, which is an earth and stone structure of oval form, is comparatively small, measuring inside the walls from east to west 54 feet, and 43 feet north to south at the widest part. The wall is 4 feet thick

all round, except that at the west side, where the natural defence is less protective, it is 7 feet thick, and higher, as shown on section. The total length to outside of wall, measuring east and west, is 65 feet.

The surrounding wall is formed of earth and stones, and stands 2 feet above the level of inside. On the east side the rock seems to have been artificially formed into a glacis for 28 feet below the level of the top of the wall, as shown on section A B.

The extensive vitrified fort of the Ord Hill of Kessock is not more than 1 mile in a south-west direction.

IV.

NOTE OF THE OCCURRENCE OF CUP-MARKED STONES IN ST PALLADIUS'S CHAPEL, FORDOUN. BY REV. JOHN MENZIES, MINISTER OF FORDOUN.

In April of this year, while examining the masonry of St Palladius's Chapel in the churchyard of Fordoun, with the view of determining whether it did not bear traces of different dates, I lighted upon two stones in the north wall distinctly cup-marked, and in a manner not previously familiar to me. I had heard of two instances of cup-marks being found on slabs which had been used as gravestones, but this was the first instance I had either heard of or seen, of stones so marked built into or along with the wall of a Christian church. They lay on the same level in the wall, 30 inches above the surface of the ground—from the east end of the chapel to the east end of the east stone 21 feet 9 inches, and from the west end of the chapel to the same point 24 feet—so that the interstice between the two, filled up with lime, is the centre of the building. This will be clearly seen when I give their dimensions.

The walls of the chapel are built in the common rubble style—none of the stones except those forming the corners, sills, and jambs of windows and doors bearing any mark of designed dressing. There is not the slightest approach to ashlar or even coursed work. The stones are uneven in length and thickness, and piled up in the most irregular

fashion. One feature of good masonry, with the one exception to be stated below, is preserved throughout. The vertical interstices between any two stones are crossed by one above, and this is secured in the usual way, where two are not of the same height, by placing not regularly, but in a kind of dovetail or overlapping style, roughly chipped bits or laminated sandstone imbedded in mortar over the lower to bring it to the required level.

With this general feature of the building in our eye, a very cursory glance discloses a difference in the masonry where the two marked stones are found. At this point the wall bulges out slightly—a feature not to be seen anywhere else in the chapel, and for which, if not purposely designed, no reason can be given.

Looking now at the stones themselves, we observe that they are of the common red sandstone of the district. The prominent feature on the face of them is the cup-marks, in regard to which nothing need be said but that they are of the ordinary size and style to be found over the country.

The stone No. 1 is 11 inches in height and 12 inches in breadth, while No. 2 is 11 inches in height and 14 inches in breadth.

No. 1 has its end chamfered to a plane about an inch in width; and a similar feature, though not so distinctly, is to be observed on the west end on No. 2. It is scarcely possible that this could be accidental or natural. There is no other example of such chamfer or corner-planing in the chapel, save in the outer jambs and lintels of the windows and doors.

On No 1 are five cup-marks. One is solitary, the remaining four are joined in unequally-yoked pairs by a shallow but well-defined scoop, forming a kind of indented unevenly-balanced dumb-bell.

From the following notes of their measurements it will be seen that the three larger cups are alike in diameter and depth, while the two smaller vary in depth by $\frac{1}{4}$ of an inch, and the shallower is connected with the shallower joining. It is noticeable also that the position of the paired cups is reversed, the smaller cup being to the east in the one case and to the west in the other.

No. I.

- (a) $2\frac{1}{2}$ inches in diameter,
1 inch *to centre* of cup in depth.
- (b) Same as (a).
1 inch in depth.
- (c) $1\frac{1}{2}$ „ diameter,
 $\frac{3}{4}$ „ depth.
- Joining between (b) and (c),
 $\frac{1}{2}$ inch in depth,
1 „ long.
- (d) Same as (a) and (b) in diameter,
„ (b) in depth 1 inch.
- (e) „ (c) in diameter $1\frac{1}{2}$ inch,
 $\frac{3}{4}$ inch in depth.
- Joining between (d) and (e) same as
between (b) and (c); immaterially
shallower.

No. II.

- (f) and (g) same size,
 $1\frac{1}{2}$ inch in diameter,
 $\frac{3}{4}$ „ depth.
- (h) Slightly oblong,
 $1\frac{1}{2}$ inch in breadth,
 $1\frac{7}{8}$ „ perpendicularly,
 $\frac{3}{4}$ „ in depth.
- (i) Seems a chip out of the stone, and
gradually rounded by the elements.
- (k) Is distinctly a cup broken into two
by a chip from the lower edge of
the stone.
 $1\frac{7}{8}$ inch in diameter.

It will be noticed that the depths of the smaller cups except c, are the same, and if we make some allowance for h having been probably chipped on one edge and weather-worn into a slight oblong, we may set them down as originally alike.

It is, I think, very unusual to have such stones in a chapel wall, and it seems to me that, taking into account their position, their edge, and cup-

marks, and the peculiarity of the masonry about them, we cannot help concluding that they who built them into the wall attached to them some meaning or mystery, if not both.

V.

NOTICE OF THE DISCOVERY OF EARTHENWARE JARS IN THE WALLS OF DWELLING-HOUSES IN DUNDEE, WITH SOME INSTANCES OF THE USE OF JARS IN ARCHITECTURE. BY ALEXANDER HUTCHESON, ARCHITECT, DUNDEE.

During the removal of several old buildings on the south side of Nethergate, Dundee, to make way for a new street, in the month of July last year, Mr George Lowdon, optician, Dundee, called my attention to certain "jugs" or jars which, he said, were to be seen built into the walls of one of the old houses about to be demolished. I lost no time in visiting it. The building was (for it has since been removed) of three stories in height, with attics in the high pitched roof, which was covered with grey stone slates, and filled up the whole space between two narrow passages called Scott's Close and Harris's Close, the former being on the west side of the building, and close to the site of Whitehall Palace, said to have been used as a residence at different times by James IV., James V., Mary, James VI., and Charles II. It was on this side that the jugs were seen. Three of them were placed in an almost equilateral triangle between two of the west windows of the upper floor, and two at the south side of a window at about the same level in a little room occupying the top of a projecting stone staircase. A sixth jug was afterwards discovered at the north side of the northernmost of the two centre windows, when the roof of a cross two-story wing was removed. All the jugs were built into the outside of the wall, and had their orifices flush with the face of the wall. When the wall was broken down, the "jugs" were found to be of various shapes, but all of a reddish-brown glazed ware, having handles on one side. One of the specimens had evidently never been used previous to being built into the

wall, because some of the scoræ of the kiln still adhered to the bottom of it. When placed in the walls the jugs lay horizontally, with the handles to one side. Two of the jugs were very much decayed, so much so that only fragments of them remained in the holes. Others were fairly preserved. One of them (fig. 1) measured $3\frac{3}{4}$ inches across the mouth, widening out slightly in the inside, by 4 inches deep. The remaining two (figs. 2 and 3) measured $2\frac{1}{2}$ inches across the mouth. Great care was exercised when the walls were broken down, but only two of the jars could be taken out tolerably whole; and these (which are to be deposited for preservation in the Dundee Museum) were kindly

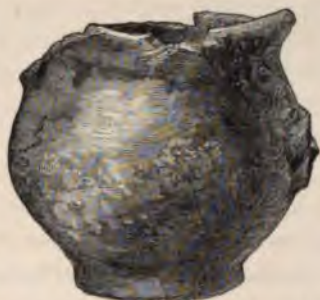


Fig. 1. Jug (wide-mouthed) found in the Walls of a House, Dundee ($4\frac{1}{4}$ inches high).



Figs. 2 and 3. Jugs found Built into the Wall of a House in Dundee ($5\frac{1}{2}$ and 5 inches high).

lent by Mr Mackison, burgh engineer, F.S.A. Scot., for exhibition to the Society. The "jugs" all adhered so firmly to the mortar and some of

them were so much decayed, that they crumbled to pieces on the mortar being broken. To all appearance they had been built into their places when the wall was originally erected.

My friend, Mr A. C. Lamb, F.S.A. Scot., who was most assiduous in his efforts to secure the safe removal of the "jugs," and to whom I am indebted for the excellent photographs of the building exhibited herewith to the members, recalled to my recollection the discovery at a prior date of a similar arrangement of jugs in another old building, known as Wedderburn's Land, which stood further to the south, and of which Mr Lamb has fortunately also preserved a photograph. In this case the jugs were placed at regular intervals beneath the sills of the upper floor windows.

Unfortunately, in this instance, none of the jugs were got out whole; and the fragments were not preserved. One of the "jugs" was stated to have been of a curious green glass, and of antique shape. The tradesman who told me this, remarked that he had seen other examples in the town; but a most careful search in the localities he indicated failed to discover them, nor, in being appealed to, could he point them out, and probably the buildings where they occurred have also been removed.

In the course of my inquiries, I learned that, so far from the "jugs" being confined to the outside of Wedderburn's Land, the workmen who took down the walls discovered them in great numbers in the inside walls of the staircase. The staircase was a wide and ample rectangular adjunct on the west end of the main building, and was separated therefrom by a thick stone wall or gable, and it was in this wall, as well as in the front or outer wall of the staircase, that the jugs were found in such numbers; and as in the building in Scott's Close, they were laid horizontally, and had their mouths flush with the inside face of the wall.

In this case, being towards the inside of staircase, the openings were all plastered over, but the jugs had not been filled with the plaster, of which there was only so much in the neck or mouth of each jug as was sufficient to hold the plaster work.

The use of jars or vases in architecture is not unknown, but so far as I

am aware no instance has been previously noted of their use in the walls of dwelling-houses.

It has been suggested that these jugs may have been intended for birds' nests. Instances occur in continental cities of provision having been made in steeples for this purpose. Fosbroke says that pigeon holes were common in the roofs of Roman houses, and mentions that the upper story of Egyptian houses is almost always devoted to pigeons. Miss Whately, in her *Letters from Egypt*, says,—“ A curious addition to most villages is the Egyptian pigeon-house, which is quite original. It consists of a great number of rude earthenware pots, built into a mud wall in the form of a dome or little tower ; in this the birds make their nests, and it is very singular to watch them all coming out of their jars in a flock, and flying off to seek food, and returning at night, and each knowing its own place.” In Persia, and other parts of the East, pigeons are kept in multitudes for the sake of their manure ; towers are built on the outskirts of the towns for them, and vast clouds of these birds may be seen issuing from them, returning to them or whirling in the air around their pinnacles. Mr Morier mentions these pigeon towers around Ispahan. Certain Egyptian paintings and mosaic pavements represent pigeon towers. In the words “ They shall fly as doves to their windows,” the Scriptures probably alluded to some such kind of pigeon-house.

The ancients employed urns or vases of terra cotta to make their arches as light as possible, the apertures being placed at top ; within and around them they poured small stones and cement. Denon, in his *Journey in Sicily*, thus describes arches of this construction which he found at Vianisi in Sicily:—“ A sort of phials, 8 inches long by 3 inches wide, without bottoms, and filled with mortar, have their necks introduced into each other in a row, covered over again with a general coat of plaster, on which a brick was laid flat, then a fresh bed of mortar and another brick upon this like the former.” It was scarcely possible ever to destroy semicircular arches of this construction, and it was with difficulty that he wrenched off a few fragments. Another writer says that this construction was used to ease the weight, and that the phials had no bottom, lest

water might collect in them and render them heavy. Examples of vases of terra cotta being introduced into the spandrels of arches to lighten them occur in Rome, at the baths of Diocletian, in the vaults under the church of St Sebastian, and at the circus of Caracalla, near Rome.

Occasionally this mode of construction was used for weightier structures, and the domes of the church of St Stephen at Rome and St Vitali at Ravenna are instances. St Stephen's church, originally a circular temple, was consecrated to the Christian religion by Pope Simplicius I. in the year 470, and underwent various transformations, particularly in the twelfth century under Innocent II., and in the fourteenth century, when it was restored under Nicholas V. and Innocent VIII. The vaulting was formed of small vases or tubes of terra cotta. These were from 6 to 7 inches long and 3 inches diameter, the exterior surface spirally channelled to give greater hold to the mortar. They were all placed perpendicularly with the points downwards.

The church of St Vitali at Ravenna, built in the sixth century, under the reign of Justinian, externally octagonal, is internally circular, with a central dome, constructed in the lower 12 feet high of ranges of vases of terra cotta 22 inches high, 8 inches diameter and having small handles. These are placed perpendicularly one on the other, the point of the upper in the mouth of the lower; the remainder of the dome is constructed with small tubes of terra cotta similar to those at St Stephen's at Rome, placed almost horizontally one within the other, and forming a spiral line from the base to the summit. These are also strengthened by another line of the same tubes, as well as several layers of the vases placed upright, and the inside and the outside are covered with mortar. This method is not peculiar to this church; it may be also seen at the ancient Baptistery of the Cathedral. D'Agincourt shows an example of an antique gate in Sicily, having the arch formed of three rows of vases of terra cotta placed one within the other. These vases are shaped much like those described above, but without the spiral channelling.

Fosbroke states that a similar construction was sometimes used on purpose to improve the acoustic properties of buildings. Evelyn, in his

Memoirs, states that he "saw a room at Padua covered with a noble cupola built purposely for music, the fillings up or cove between the walls being of urns or earthen pots for the better sounding." Marryat, in his *Pottery and Porcelain*, says that at the church of St Tomé, "the tower is of Moorish architecture, and it has some panelling, the arches of which spring from alternate columns of green and red glazed pottery." Pots of red earthenware were also placed below tessellated pavement, although for what purpose is not quite clear.

It may be questioned if any of these instances throw a light on the purpose of the Dundee jars, unless, perhaps, in the case of Wedderburn's Land, where the jars were built into inside walls. The date of Wedderburn's Land has been preserved in a rather singular fashion by means of the numerals 1684, of large dimensions, in wrought iron, being secured to the face of the wall by strong clasps, although I should ascribe it as well as the house in Scott's Close to an earlier date. The jars belong to a type quite as old, if not older, than the buildings.

Owing to the narrowness of Harris' Close, it was found impossible to procure a photograph of the east side. A striking peculiarity of this side consists in the four narrow niches near the eave. These niches were all of one size, placed at regular intervals, and measured 20 inches high, 5 inches wide at back, $7\frac{1}{2}$ inches at front, and 3 inches deep. Each had a sill or ledge projecting 4 inches from the face of the wall, all much wasted and worn, and rounded off by the weather and the lapse of time. These niches may at one time have contained statuettes. It is a pity that more information cannot be obtained about this very interesting old house.

On a review of the case, I should be inclined to ascribe this instance of the use of jugs to some superstitious observance now forgotten.

It is well known that certain birds are regarded with superstitious feelings. The schoolboy rhyme declares that those who injure the swallow, the robin, or the wren, will never thrive again. These feelings are widely spread. Wilson, the American ornithologist, says:—"In the United States it is customary to fit up boxes for the swallows to nestle in; and the

country people have a superstitious idea that if they permit the swallows to be shot, their cows will give bloody milk; and, moreover, that the barn tenanted by the swallows will never be struck by lightning." On the banks of the Mississippi, the negroes stick up long canes with a species of apartment fixed to their tops, in which the martins regularly breed. The Indians also show a particular regard for this bird, and cut off all the top branches from a sapling near their villages, leaving the prongs a foot or two in length, on which they hang gourds and calabashes properly hollowed out for the convenience of the birds. The dove was a sacred bird amongst the ancients, being consecrated to Venus; and in Christian countries it is the well-known emblem of the Holy Spirit. It was probably enough, in accordance with some such ancient usage or superstition, that birds were allowed to build in the Jewish temple, as the Psalmist seems to indicate—"The sparrow hath found an house, and the swallow a nest for herself, where she may lay her young, even thine altars, O Lord of hosts." One can scarcely believe that birds would have been allowed to build in the temple, unless in deference to such a superstitious respect. The persistency of superstitious customs and ideas is exemplified by the well-known continuance of pagan usages in Christian times which, by the law which reverences a custom long after its origin and primitive use have been forgotten, has preserved even to our own day many practices which have no longer any meaning to those who engage in them; and so this instance of the building of jars into the walls of houses may simply be a relic of a superstitious usage, which ascribed immunity from calamities that otherwise might overtake the building or its human inhabitants to the presence of certain birds, and the protection thus afforded to them.

Whether this be the true explanation or not, it must ever be regretted that such an interesting example of this curious architectural feature as that presented by Wedderburn's Land should have been swept away without any skilled examination being made, and thus the opportunity perhaps lost for ever of throwing light on what cannot but be regarded as an omitted, because unsuspected, chapter in the history of the domestic architecture of Scotland.

VI.

NOTICE OF THE DISCOVERY OF FIVE BRONZE CELTS AND A BRONZE RING AT THE "MAIDENS," NEAR CULZEAN CASTLE, AYRSHIRE.
By ROBERT MONRO, M.A., M.D., F.S.A. SCOT., KILMARNOCK.

The pretty little bay, known as the "Maidens," on account of a few fantastic and weather-beaten rocks that rear their heads above its surgy waves, is bounded on the south by a plateau or ridge of whinstone which terminates somewhat abruptly on the sea-shore in a series of grassy knolls, with the bare rock here and there protruding. Between this ridge and the low shelving rocks away to the south, on which stand the ruins of Turnberry Castle, there stretches a flat and bleak-looking plain, which the merest tyro in geology could hardly avoid recognising as having a marine and recent origin. From a further inspection of the locality, it also becomes apparent that the base of the plateau was at some former period washed by the sea, from which, however, it is now separated by a narrow strip of rocky shoreland, the hollows of which have got gradually filled up with gravel, washed-down soil, and blown sand. Immediately beyond the first projecting spur of whinstone, as we approach it along the shore from Culzean Castle, the higher escarpment recedes a little, and forms, in miniature, a semicircular bay, traditionally known as port "Morrough" or "Murray." Here the low lying shoreland has acquired a breadth of about 100 yards, and, owing probably to its sheltered situation and maritime conveniences, has been selected by the Marquis of Ailsa as the site of a new shipbuilding yard, the construction of which is now being vigorously prosecuted.

The preliminary ground clearances and levelling requisite for the foundation of such extensive buildings necessitated a considerable amount of excavations, especially at the back part, which had been carried as far inland as the elevated ground would admit of. In order to keep the posterior margin of this excavation straight, it became necessary to slice off a section (about 5 or 6 feet thick) of one of the whin-

stone bosses, which, on the superficial soil being removed, was found to project within the area of the proposed building, and upon dislodging its very lowest portion, the workmen came upon five bronze celts and a bronze ring lying together, as if concealed in a lateral crevice. Lord Ailsa, who fortunately happened to be at hand when the discovery was made, at once recognised the archæological importance of these articles, and took possession of them; otherwise they might have met with a similar fate to that which befell the great hoard—no less than a pot-full of bronze implements or weapons—dug up, now many years ago, on the neighbouring estate of Kilkerran, and secretly disposed of by the workmen among the surrounding villagers for a mere trifle, and of course now irretrievably lost.

In consequence of a communication from Captain Boyle of Shewalton, I had an opportunity, on the 3rd of May 1883, only a few days after the discovery of the celts, of inspecting the locality, and of ascertaining all the circumstances in connection with this most interesting find. My visit was made in the company of Lord Ailsa, and his factor Mr Smith, who had already made themselves conversant with the facts of the discovery, and it is therefore chiefly to them I am indebted for my information. I had, moreover, a long chat with the workman who actually first saw and picked up the celts, and from him also I had their relative position pointed out, together with a minute and graphic account of the manner in which he had come upon them.

The depth of the face of the cutting, which here consisted of solid whinstone, immediately behind the spot where the celts lay, was exactly 4 feet, and the accumulated débris on both sides of this rock, as clearly seen on the fresh section, consisted of a layer of talus, apparently washed-down loam, and underneath this a bed of coarse sea-gravel or shingle. The line of demarcation between this gravel and the overlying talus was exceedingly well-defined. The north-east end of the section terminated at the foot of the large projecting spur which bounded that end of the quondam port Morough, and here the gravel increased in thickness; but on the other side, *i.e.*, looking towards the sea in the direction of the centre of the port, the gravel shelved downwards, so that while on the



1. The largest of the Bronze Celts found at Culzean (actual size).

former side the talus and gravel close to the rock under which the celts were found had each a thickness of about 2 feet, on the latter the talus would be a few inches thicker than the gravel. To what extent the gravel was met with immediately in front of the removed section of the



Fig. 2. The smallest of the Bronze Celts found at Culzean (actual size).

rock could not be accurately ascertained, as the whole area had already been cleared away, but, from an examination of the material wheeled to a lower level, and the end sections, it must have extended for several yards. There can be no doubt, therefore, that the spot where the celts were deposited was at a considerably lower level than the gravel which surrounded it on all exposed sides. Moreover, according to Mr Smith's measurements and levelling, this spot was over 100 yards distant from the shore and 25 feet above the level of the present high-water mark. Unless, therefore, there was a vertical slit in the rock, of which there was no indication whatever, it is difficult to form any other opinion than that the ledge of rock under which the celts were concealed was, at the time of their deposition, open towards the shore; and that the waves subsequently dashed against it with sufficient violence to cover up the opening of the crevice with a portion of this coarse gravel. Since then, however,

the tide has gradually receded, either in consequence of the accumulation of detritus, and of a general rising of the sea-beach. Curiously enough, the position of this find coincides with the latest and best defined of the ancient sea margins or raised beaches, the remains of which are so conspicuous in the south-western districts of Scotland.

In looking carefully at these celts, it will be seen that they are plain, wedge-shaped implements, made of yellow bronze, after one uniform pattern, graduated in size, from the largest (fig. 1) to the smallest (fig. 2), and presenting a curved cutting edge.

The following are their respective dimensions :—

Number.	Length.	Greatest Breadth.	Thickness.
	Inches.	Inches.	Inch.
I.	$5\frac{1}{2}$	$4\frac{1}{2}$	$\frac{3}{8}$
II.	$4\frac{3}{4}$	$2\frac{3}{4}$	$\frac{3}{8}$
III.	$4\frac{1}{2}$	$2\frac{3}{4}$	$\frac{3}{16}$
IV.	4	$1\frac{3}{4}$	$\frac{1}{4}$
V.	$3\frac{1}{4}$	$1\frac{1}{2}$	$\frac{1}{8}$

The ring was broken into two portions, but upon replacing the fragments it was found to be penannular, and measured $2\frac{7}{8}$ inches in diameter (external), with a thickness of $\frac{1}{4}$ inch.

The gradation of sizes is so striking, especially when looked at from the respective extent of cutting edge presented by each implement, that Lord Ailsa, when first notifying their discovery to Captain Boyle, very happily described them as a "kit of tools." Subsequently, his Lordship justified this inference, by pointing out that while they all bore evidence of considerable usage, the extremes were not so much the worse of the wear as the medium sizes, which, being the most serviceable, were more frequently in demand—a most practical observation, and as applicable to the present as to the prehistoric Bronze age.

Though similar bronze celts have been abundantly found as stray objects in fields, and occasionally in graves, and are largely exhibited in our museums, the information hitherto elicited from them as to their use in ancient times is so meagre and indefinite, that antiquaries are not yet agreed upon the point. Hence the great value of the present find, which seems unique of its kind in Scotland, inasmuch as it points to the fact that these axes were used as industrial implements.

Two speculative questions are here suggested to us, which if even approximately determined, would serve as important landmarks in the prehistoric age—(1) Can the antiquary, by a stringent application of the principles of his science, tell us when bronze was first used, or ceased to be used by our forefathers in the manufacture of such implements as are here described? and (2) can the geologist define, in years, the interval that has elapsed since the 25 to 30 feet raised beach was formed and left high and dry along the indentations of our shores? The discovery in the Firths of Tay, Forth, and Clyde of the skeletons of whales and seals, and of marine shells similar to those now found around our shores, as well as of canoes with stone and bone implements, and other remains of human industry, in raised beaches which could only have been formed when the sea stood some 25 or 30 feet higher than the present mean tide-mark, is held by some to be sufficient proof that this alteration has taken place since neolithic man found his way to North Britain. Indeed, Dr Archibald Geikie advocates, or at one time did advocate, that the coast in the parts of Britain here referred to, has been elevated to the above extent since the invasion of the Romans. I should suppose, however, that there are few antiquaries who would assign the manufacture of these bronze celts, or the date of their final deposition under the sea-worn cliff at the "Maidens," to any post-Roman period.

VII.

DESCRIPTION OF TWO WOODEN TUMBLER LOCKS FROM FOUCHOW, CHINA, NOW PRESENTED TO THE MUSEUM. BY J. ROMILLY ALLEN, F.S.A. SCOT.

The two locks about to be described were sent over to this country from Fouchow by my brother, Mr R. B. Allen, and contrivances of a similar kind are in common use in China at the present time. They belong to the class of multiple tumbler locks, described in a paper on the subject in a previous volume of the *Proceedings* of the Society,¹ and are interesting to Scotch archaeologists on account of their close resemblance to the wooden locks which were used up to quite recently in the islands of Shetland, Skye, and Lewis. Curiously enough, the keys are identical with those found in connection with Saxon remains in England, specimens of which may be seen in the Guildhall Museum in London and in the

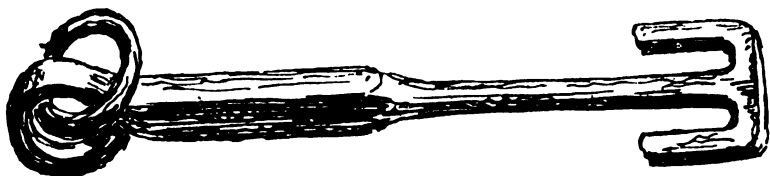


Fig. 1. Saxon Key in the Guildhall Museum, London (7 inches in length).

Mayer Museum in Liverpool. There is in General Pitt Rivers's Anthropological Collection a Norse lock of different construction to the Chinese one, but with a similar key, so that the Anglo-Saxon lock may have resembled either one or the other.² The Norse lock (fig. 2) has a wooden bolt which is prevented from moving by a flat spring fixed against the door, which catches in a notch inside of the bolt next the door. The key passes into a horizontal slit right through the door,

¹ *Proc. Soc. Ant. Scot.*, vol. xiv. p. 149.

² Sketched from the original by kind permission of General Pitt Rivers. For further information, see General Pitt Rivers *On the Development and Distribution of Primitive Locks and Keys*, p. 23, and F. Liger, *La ferronnerie ancienne et moderne*, vol. ii. p. 229,

spring and bolt, and by turning it round and pulling it back the spring is depressed, and the bolt can be moved with the key.

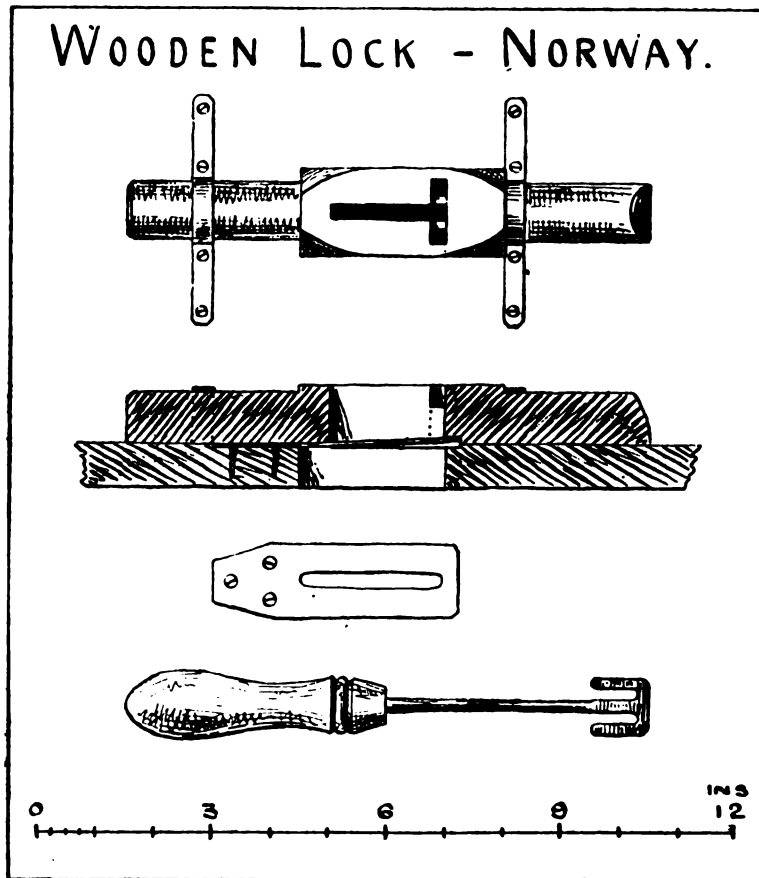


Fig. 2.

Chinese Lock, No. 1.— This lock (fig. 3) consists, in addition to the key, of four parts, three of which are movable and one fixed. The

fixed part is the case or body of the lock, and it contains the movable parts, that is to say, two tumblers and a sliding bolt. The case is formed

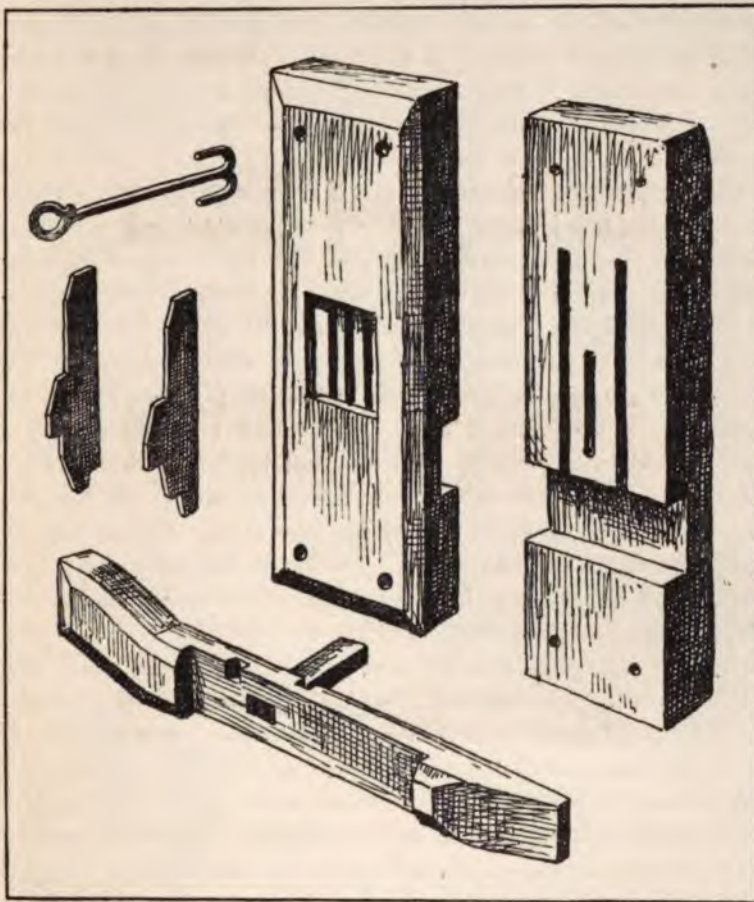


Fig. 3. Wooden Lock from China.

out of a piece of wood measuring 1 foot 1 inch long by $4\frac{1}{2}$ inches wide by $1\frac{1}{2}$ inches thick, and is fixed against the inside of the door by four

nails. It has cut in it a horizontal groove, on the side next the door, to receive the bolt, and two vertical grooves on the same side for the tumblers to slide in. Between the two tumbler grooves is a vertical slit cut right through the lock case opposite a corresponding slit in the door, which serves for a keyhole. In the front of the case is cut a square recess, communicating with the tumbler grooves and the keyhole, the object of which is to enable the tumblers to be lifted by the tips of the fingers, from the inside, as hereafter described.

The bolt is 1 foot 3 inches long and 2 inches wide by 1 inch thick. It has mortised into it at right angles a square pin which projects through a horizontal slot in the door, so that the bolt can be moved from the outside. In the top of the bolt are cut two notches at each side, into which the ends of the tumblers fall. One end of the bolt is canted upwards, so as to give the hand a firmer grip when drawing it. The two ends of the bolt are thicker than the middle part, which regulates the amount of play allowed to it. The tumblers are thin strips of hard wood $5\frac{1}{2}$ inches long by $1\frac{1}{2}$ inch broad by $\frac{1}{4}$ inch thick. Their ends are shaped so as to fit into the holes in the top of the bolt, and there are notches cut about halfway up, so that the tumblers may be lifted with the tips of the fingers. The key is formed out of $\frac{1}{4}$ inch iron with a T-shaped end and a ring handle. The lock is opened in two different ways; from the outside with the key and from the inside with the fingers. It is opened from the outside in the following manner:—The key is held in the right hand with the shank horizontal and the T-shaped end in a vertical plane. It is then pushed forwards through the vertical slit in the door and lock-case, which acts as a keyhole. When the T-shaped end has got right through to the other side it is brought into the horizontal plane by turning the key through a quarter of a circle. The key is then drawn back a little towards the door, until the T-shaped ends catch under the notches in the tumblers, which can now be lifted by raising the key. At the same time the bolt is drawn with the left hand by pulling the pin which projects through the slot in the door.

From the inside the lock is opened by placing the tips of the first and

second fingers of the right hand under the notches in the tumblers, which are then lifted, whilst the bolt is pulled with the left hand.

Chinese Lock, No. 2.—The only difference between this lock (fig. 4)

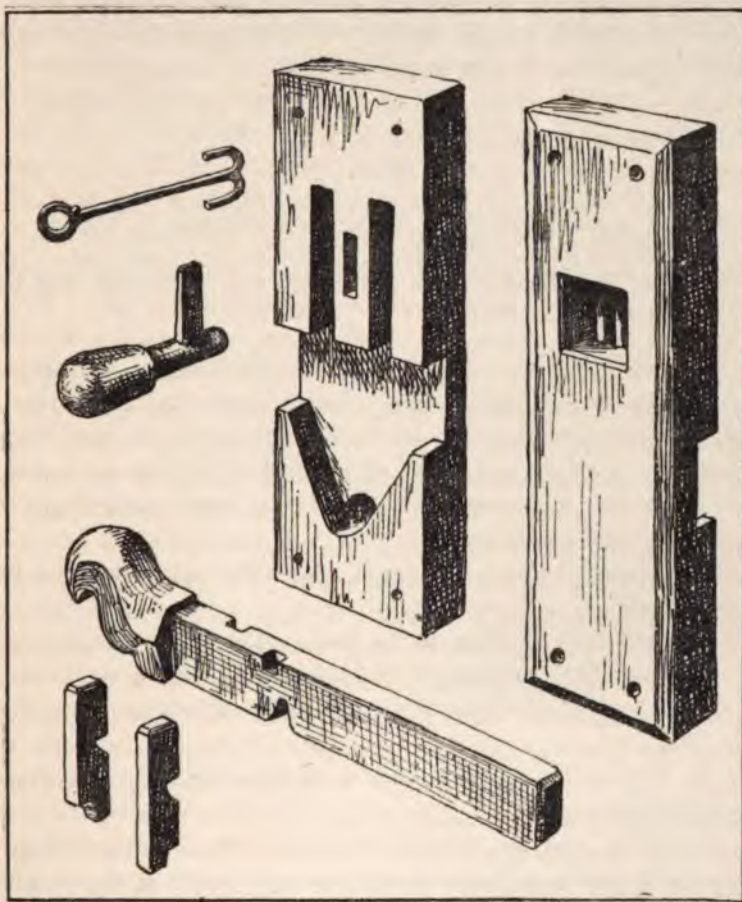


Fig. 4. Wooden Lock from China.

and the preceding is in the size and the method of moving the bolt

from the outside. This is effected by a wooden handle, which turns round and acts exactly like an ordinary English door knob.

The dimensions are as follows :—

Lock-case, 1 foot 3 inches long by $4\frac{1}{2}$ inches wide by 2 inches thick ; bolt, 1 foot 5 inches long by $2\frac{1}{2}$ inches wide by 1 inch thick ; tumblers, 4 inches long by 1 inch wide by $\frac{1}{2}$ inch thick.

VIII.

NOTICE OF A COLLECTION OF BEADS AND WHORLS OF STONE, &c.,
FROM THE N.-W. PROVINCES OF INDIA ; NOW PRESENTED TO THE
MUSEUM. IN A LETTER TO THE SECRETARY. By J. H. RIVETT-CARNAC,
F.S.A. SCOT., GHAZIPUR, INDIA.

I am sending by post, for the acceptance of the Society, a small collection of beads found on ancient sites in India. Most of them have come from the Futehgurh District of the N.-W. Presidency. To these I have added some clay discs—spindle whorls (?) balls—"volcano shaped" terra cottas (see my papers sent to the Society some time ago, and Dr Schliemann on Hissarlik).

These Indian remains will in all probability much resemble the Scottish finds.

I wish particular attention to the beads. The chain sent contained two or three of the curiously *enamelled* beads referred to by Mr John Evans (see *Proceedings of the Society of Antiquaries, London*, vol. viii. page 537).

I am very anxious to know whether these peculiar types are found anywhere in Europe.

An ordinary bead is a bead all the world over, but these curiously enamelled ones have a character of their own that might be worth tracing if possible. They are found sparingly in many different parts of the country, and are all of the same type.

In looking through the *Proceedings* of the Society for 1879–80, I see

there is a paper on Fire-producing Machines by Mr J. Romilly Allen. I also send you by overland parcel post a small box containing a Flint and Steel for the acceptance of the Society.

This flint and steel is in use amongst the mountaineers of the Himalayas belonging to the provinces of Kumaon and Gurnwhal. The provinces border on the Thibetan province of Bhole or Hindues, literally ("highlands" or "snow-lands"). Nearly every man in these mountain provinces wears such a flint and steel, and the one now sent was bought at Dakri in Kumaon. On Dakri, a richly wooded, oak-clad hill, grows the small plant used for tinder. The blossom is white, and resembles a camomile flower. I am sorry I omitted to gather any of the plant. The flint is any small piece of stone struck from the neighbouring rocks. The flint and steel is a somewhat conspicuous ornament. The dress of a hillman is composed chiefly of a coarse blanket worn folded in a peculiar manner. It is fastened across the chest by the pin and chain, which you will find attached to the *chuckmuck*, as the flint and steel is called. The chuckmuck is worn hanging in front; and as these chuckmucks are highly ornamented with brass, and constant friction keeps them bright, they are very noticeable objects.

Besides the chuckmuck, each man is provided with three small toilet implements which you will find attached to the chain,—a pair of pincers for extracting thorns, a spoon-shaped implement for dislodging wax from the ears, and a small toothpick.

The flint and steel sent is a combination of a leather pocket with a steel attached. In the pocket is carried the tinder and the strike-a-light or small flint. In fact, it is the hillman's match-box, which he replenishes at will from the mountain side on which he dwells.

The large brass brooches worn by the hill women in the neighbourhood of Simla closely resembles the old Celtic brooch. A good specimen is to be seen in Mrs Rivett-Carnac's Collection of Indian Peasant Ornaments in the Loan Department, South Kensington Museum. I will try and procure one for the Society's collection.

IX.

NOTICE OF URNS IN THE MUSEUM THAT HAVE BEEN FOUND WITH ARTICLES OF USE OR ORNAMENT. BY JOSEPH ANDERSON, LL.D., ASSIST.-SEC. AND KEEPER OF THE MUSEUM.

The object of this paper is to gather together some of those instances in which articles of use or ornament have been found associated with urns in the sepulchral deposits of Scotland, so far as the urns themselves, and the objects associated with them, are preserved in the Museum.

On the 22nd June 1828, there was communicated to the Society by

E. W. A. Drummond Hay a notice of a sepulchral urn discovered on the estate of the Earl of Fife, in Banffshire. The original notice has not been preserved, but it appears that when the urn was discovered, there were found in it two penannular rings or bracelets of gold, and three smaller penannular rings of the same metal.¹ The urn and the gold ornaments are still in the Museum. Although thus found associated with one of the richest deposits of a sepulchral nature ever discovered in Scotland, the urn itself (fig. 1) is perhaps the plainest and rudest in the collec-



Fig. 1. Urn found with Gold Ornaments in Banffshire (6 inches in height).

tion. It measures $5\frac{1}{2}$ inches diameter across the mouth and 6 inches high, is coarsely made of ill-burned clay, and totally destitute of ornament. Its form is that which is usually associated with burials after cremation, although the gold ornaments exhibit no sign of having passed through the fire. The two larger penannular rings or armlets (one of which

¹ *Archæologia Scotica*, vol. iv. p. 298.

is shown in fig. 2) are formed of hammered rods of gold, about $\frac{1}{8}$ th of an inch in thickness, bent to a slightly elliptical oval $2\frac{3}{4}$ inches diameter.

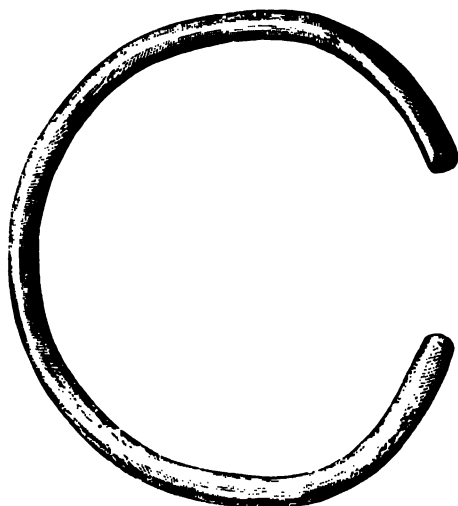


Fig. 2. Gold Armlet (one of a pair) found in the Urn ($2\frac{3}{4}$ inches diameter).

The other three rings (fig. 3) are smaller. The largest of the three is a rod about $\frac{1}{10}$ th of an inch in thickness, bent to an oval of about $\frac{7}{8}$ inch by $\frac{1}{2}$ inch. The other two are circlelets of less than $\frac{1}{2}$ an inch diameter. With them there were also found two much-corroded fragments of thin bronze, in one of which there was a portion of a rivet hole, indicating the remains of one of the thin triangular bronze blades which are the most frequently occurring objects of bronze associated with interments.



Fig. 3. Three small Gold Rings found in the Urn (actual size).

There is another pair of gold armlets in the Museum, which were found in association with an interment of an unburnt body in connection with a group of burials at Alloa, of which the larger number were burials

after cremation. The discovery is thus referred to in a letter by Mr Jamieson to Mr Bald, dated March 10, 1828 :—"On Thursday or Friday last, as some labourers were breaking up the old road leading from the Tontine to the Academy, in order to repair it, they found (1) two earthen urns containing burnt bones, and (2) a large flat stone, under which was an entire skeleton. Upon the top of the stone they found two things resembling the handles of a drawer, or of a coffin, of an oval form, and evidently of very fine gold, though of rude workmanship, for they evidently bore the marks of the hammer." One of these armlets is shown of the actual size in fig. 4. In an investigation of the group of graves

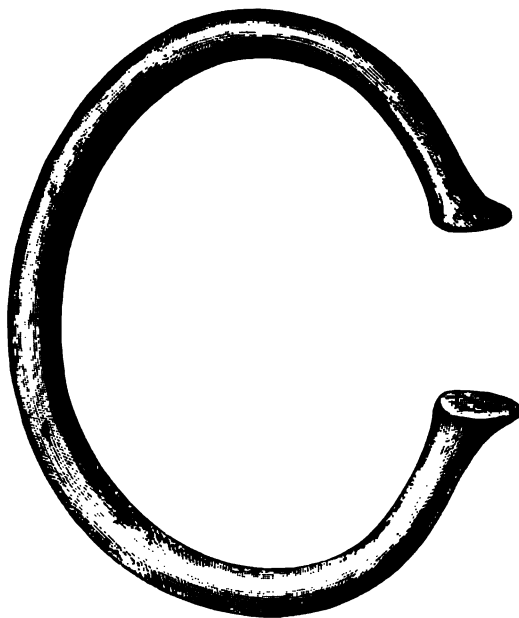


Fig. 4. Gold Armlet (one of a pair) found with a Burial at Alloa (actual size).

thus discovered, which was made shortly thereafter, no fewer than twenty-two urns were found. No record of the investigation now exists,

so far as I am aware; but in a letter of Mr Bald's, dated May 31, 1828, there is a statement that it was made at the instance of the Earl of Mar, and that it resulted in the finding of twenty-two urns in all. Of these, only one (shown in fig. 5) is now known to exist. It was sent to the Museum



Fig. 5. Urn, being one of a group of twenty-two found at Alloa in 1828 (12½ inches high).

by Mr Bald, and has thus been preserved. The gold armlets were sold by the workmen to a pedlar, but after a great deal of trouble they were ultimately recovered by the Exchequer, and presented to the Museum.

In 1831, in trenching ground near the Castle of Kinneff, in Kincardineshire, an urn was found, associated, it is said, with two bronze rings and a spear-head of bronze, all of which were presented to the Museum by Rev. Alan Stewart in 1834. The urn (fig. 6) is somewhat bowl-shaped, is 5½ inches high, and the same in diameter at the mouth, and highly ornamented. The bronze rings which were found with it (one of which is

Evantoun, Ross-shire. It measures 6 inches in height by 6 inches in diameter at the mouth, and is gracefully ornamented. Along with it



Fig. 12. Urn found at Fyrish, Evantoun, Ross-shire (6 inches in height).



Fig. 13. Fragments of Felstone found with the Urn at Fyrish.
The fragments are 11 inches in length.

there was found a fragment of Felstone, which measured 11 inches in length by 1 1/2 inches in breadth. The fragment was found in the same place as the urn, and is supposed to be the same material as the urn.

shown in fig. 7) are slightly unequal in size, but similar in form. They are formed of rods of bronze, slightly flattened on the inner sides, bent



Fig. 6. Urn found with a pair of Bronze Rings at Kinneff (5¼ inches high).

into a circular form, with the ends close together, but unjoined. The



Fig. 7. Bronze Ring (one of a pair) found with the Urn at Kinneff (3 inches in diameter).

spear-head, although it is said to have been found with them, was not

probably associated with a burial. No instance of a spear-head indubitably associated with a burial is known in Scotland. In the present case, the probability is that the spear-head was found somewhere near the burial in the process of trenching the ground, but as its patina and state of keeping differ greatly from the patina and corroded condition of the rings, it is not probable that they lay together in the same circumstances of underground association. Other bronze rings, of precisely the same form and construction, have been found similarly associated with burials.

In the parish of Crawford, Lanarkshire, a cairn of stones, covering two cists, situated in a little corry immediately below the junction of the



Fig. 8. Urn found in a Cist in a Cairn in the Parish of Crawford, Lanarkshire (6 inches in height).

Glengonar burn with the Clyde, was opened by the late Mr Adam Sim of Coulter Mains. In one of the cists was found an urn (fig. 8) of the tall narrow form, with thin everted lip, and a bronze ring (fig. 9) of the same form as the rings found with the Kinneff urn. It measures externally 3 inches diameter, internally $2\frac{3}{8}$ inches, is flattish on the inside, and covered with a beautiful patina. The urn with which it was found is of the form known as the drinking-cup type. It stands 6 inches

high, is $3\frac{1}{2}$ inches diameter at the mouth, and $3\frac{1}{2}$ inches at the bottom. It is of graceful shape and finely ornamented. In the account of Mr Sim's collection by the late Mr George Vere Irving, in the *Journal* of the Archæological Association, vol. xvi. p. 3, and also in the *Upper Ward of Lanarkshire*, vol. i. p. 39, a bronze spear-head, with loops in the base of the blade, is said to have been found with the urn and ring. The



Fig. 9. Bronze Ring found with the Urn (3 inches in diameter).

spear-head, which is now in the Museum, differs much in appearance and condition from the ring. It has no patina, but preserves the yellow colour of the bronze, and it seems therefore unlikely that it could have been found under the same circumstances as the ring. There is, as I have already said, no properly authenticated instance of a spear-head of bronze having been found in true association with a burial in Scotland.

In 1873 there was presented to the Museum a small but finely-shaped urn (fig. 10), slightly bowl-shaped, $4\frac{1}{2}$ inches in height, which was found with a burial under a cairn on the farm of Glenhead, near Doune. The urn is well formed and highly ornamented. Along with it there was found a pretty little stone hammer (fig. 11) of veined quartzite, $2\frac{1}{2}$ inches in length

by $1\frac{1}{4}$ inches diameter, finely polished and rounded at both ends, with a perforation for the handle through the centre. Hammers of this form



Fig. 10. Urn found in a Cairn at Glenhead, near Doune ($4\frac{1}{4}$ inches high).



Fig. 11. Stone Hammer found with the Urn ($2\frac{1}{2}$ inches in length).

and of the same material have been found associated with interments in England.

A stone hammer of similar type, but larger in size, was found in one of a number of urns discovered together in what must have been a cremation cemetery at Cambusbarron, in Stirlingshire, in 1864. The urns were of the large cinerary variety, always found with burnt interments. Of the four which are preserved in the Museum, the largest is 15 inches high and 13 inches diameter at the mouth, and the smallest 7 inches high and $6\frac{1}{2}$ inches in diameter. The hammer is 5 inches in length, 3 inches in breadth, and $2\frac{1}{2}$ inches in thickness. With one of the urns there were also found portions of a thin bronze dagger blade. The urns are all of the same form, and the inference is that the bronze and stone implements thus found with them belonged to the same community and to the same condition of culture and civilisation.

In 1865 an urn of different form (fig. 12), presented to the Museum by Mr William Walker, was found in a cist on the farm of Fyrish, near

tion on the left side, there was an urn of the tall narrow form (fig. 15), $6\frac{1}{2}$ inches high by $5\frac{3}{4}$ inches wide at the mouth, with bulging sides and thin



Fig. 15. Urn and Spoon of Horn found in a Cist at Broomend, Inverurie
($6\frac{1}{2}$ inches high).

everted lip. Hanging over the side of the urn there was a spoon of horn, bent apparently by decay of the material and its own weight. Behind the



Fig. 16. Urn from the same Cist as fig. 15 ($5\frac{1}{2}$ inches high)

infant skeleton, which was placed in the north-west corner of the cist, was another and smaller urn (fig. 16) of the same form ($5\frac{1}{2}$ inches high

by $3\frac{1}{4}$ inches wide at the mouth), which is here figured for the first time.¹ In another grave of the same group, which had been previously opened by Mr James Hay Chalmers, two unburnt interments were also found in one cist, the heads being placed at opposite ends of the cist. With them were two urns (figs. 17, 18) of peculiarly graceful form and ornamentation, which I am glad to have the opportunity of figuring.



Figs. 17, 18. Urns from a Cist at Broomend, Inverurie (6 inches and 7 inches high).

At Tormore, in Arran, in 1861, in the centre of a stone circle about 7 yards in diameter, formed of four blocks of granite, a cist was found by Dr Bryce containing an unburnt interment, with which an urn, here figured (fig. 19), and two or three flint flakes, were found. The urn is $7\frac{1}{2}$ inches in height and 7 inches diameter at the mouth, tapering to a base of $3\frac{1}{4}$ inches. In another circle of the same group,

¹ These urns are not in the Museum, though the spoon is. They have been figured from photographs. The two urns found by Mr J. H. Chalmers are in the Museum, and are here figured for the first time. See the *Proceedings*, vol. vii. pp. 110 and 115, for the detailed accounts of these discoveries.

15 yards diameter, and formed of tall sandstone slabs, a cist was found containing an unburnt interment, with an urn of the same form (fig. 20) in fragments, a bronze pin $2\frac{1}{2}$ inches in length, and some flint chips.

One object of this brief description of these interments is to point out the fact that the different forms of these urns are all forms that are found associated with bronze.

The urns which have been thus described all differ in form, in material, and in ornamentation, from the urns of the Stone Age found in chambered cairns, of which there are only two in the Museum whose forms can be made out. They are small, round-bottomed vessels, of a hard, close paste, very dark in colour, and peculiarly ornamented by vertical striations or flutings.



Fig. 21. Urn from a Chambered Cairn at Auchnacree, Argyleshire.

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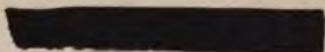
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